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ABSTRACT

Three broad categories are cited that describe the nature of a college or university as an organization and that potentially influence an institutions academic outcomes. These categories are: the college's formal organizational characteristics, structures, processes, and practices; its culture; and its climate. This literature review aims to identify and clarify concepts related to this framework, identify organizational characteristics related to improvement of student outcomes, and refine the research framework. The review is divided into the following sections: (1) performance measures in higher education: effectiveness, efficiency, quality, and student outcomes; (2) organizational culture and climate: an external perspective; (3) defining culture and climate in higher education: conceptual confusion; (4) institutional strategy and student outcomes; (5) academic management practices: impacts on culture, climate, and student outcomes; (6) organizational characteristics: relationships to culture, climate and outcomes; (7) overview of organizational variables, practices, and characteristics; and (8) a conceptual synthesis: complexity or chaos. Both higher education and non-higher education literature is included. Five hundred and sixty-five references are included. (LB)

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A Review of the Research Literature

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Introduction

The Problem of Organizational Context

One of the unique aspects of American higher education is the extensive set of institutional types and internal arrangements that we have for our higher educational institutions compared to other countries. The extent to which we value this variety of organizational context is represented by the extensive descriptions of our diversity (Birnbaum, 1983) and the extent to which groups like the Carnegie Commission (1976) have proclaimed it. We pride ourselves on the diversity of institutional types, on the organizational arrangements for delivering education, on the internal structures and processes, and on external organizations for coordinating education. In almost every instance, we argue that we have created organizational forms to improve the delivery of educational services and scholarly productivity. Yet, the reality is that there is little in the way of obvious research evidence that examines the relationship of organizational characteristics and variables with either our institutions' academic climate or our teaching and learning (teaching/learning) outcomes. This issue can be addressed at several organizational levels.

For example, there have been a number of studies of the relationship of institutional types or broad organizational characteristics to student performance after graduation (Withey, 1971; Bowen, 1974, 1977). Such broad institutional level studies tend to examine the performance of students after they have graduated in order to see how college students differ from those without college education and how those outcomes differ among institutional types or institutions with differing characteristics. While such studies are of substantial interest, they tell us little about how a particular college or university affects student outcomes or, indeed, whether it had any effect at all.

There are also intensive case studies of colleges and universities as organizations in order to see how they have affected change in students (Newcomb, Turner, & Converse, 1965). There are also a variety of studies that have examined and dealt with particular student problems and issues, such as institutional responses to minority groups (Peterson, Blackburn, Gamson et al., 1978); issues of retention (e.g., Munro, 1981; Pascarella, Duby, & Iverson, 1983); and a variety of other student-related issues. Again, these focused case studies or studies of issues provide relatively little information about how the internal organizational context of a college or university affects teaching/learning or student outcomes.

From a more micro-perspective colleges and universities as organizations have been studied at the departmental or academic unit level. There has been a substantial amount of work focused on this organizational level of higher education (Dressel, Johnson, & Marcus, 1970; Dressel & Kimsey, 1976; Smart & Montgomery, 1976). However, our primary interest in this research program is not to rehash extensive studies of academic units which are well summarized in the literature.

The intent of the research which this literature review examines is to focus on organizational level phenomena by addressing the following research problem:

> What are the organizational factors or variables that affect an institution's academic culture or climate and its student outcomes?

Purpose and Framework for the Literature Review

The National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL) research program which addresses this problem is guided by a broad conceptual framework for examining colleges and universities as organizations (see Figure 1).

Three broad categories or sets of variables are envisioned that describe the nature of a college or university as an organization and that potentially influence an institution's academic outcomes (i.e., its academic effectiveness, efficiency, quality, and student outcomes). These three categories are: (1) the college's or university's formal organizational

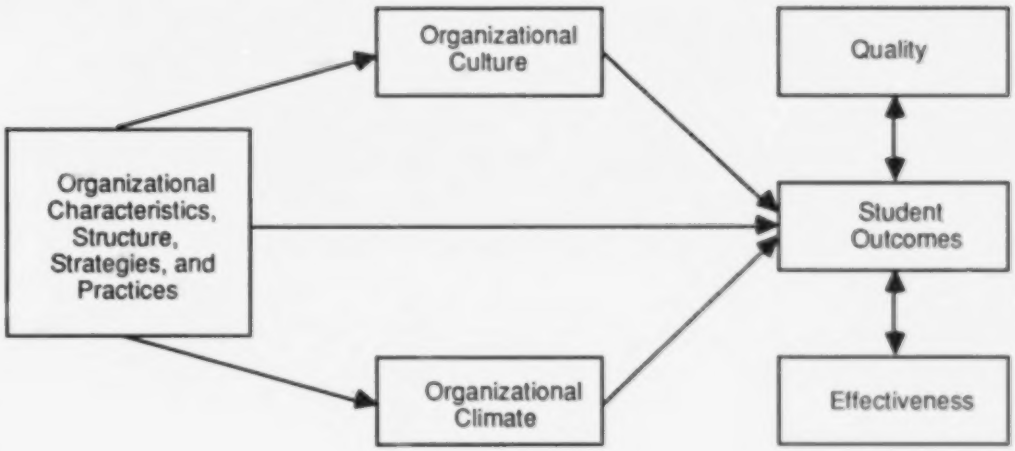

Figure 1. The organizational context for teaching and learning.

characteristics, structures, processes and practices; (2) its culture; and (3) its climate. Because the NCRIPTAL focus is on student educational or cognitive outcomes, our interest is in organizational variables which relate primarily to the academic or educational function of an institution. (Detailed research questions emanating from this framework are found in the NCRIPTAL proposal.)

The purpose of this literature review is threefold:

1. To identify and clarify concepts or variables that illuminate this broad framework;
2. To identify organizational characteristics, structures, strategies or practices that are/or may be related to improvement of student outcomes; and
3. To refine the framework that guides the research questions and design of the organizational research program.

Because this research activity focuses on colleges and universities as organizations, two distinct literature sources and two sets of questions guided this literature review: One focuses on non-higher educational literature and the second focuses on higher educational literature. The questions guiding the literature search and which form an outline for the following sections are as follows:

I. From Organizational and Higher Educational Literature:

   A. What are institutional quality and effectiveness?
   B. How do they relate to student outcomes?

II. From the Organizational (Non-higher Educational) Literature:

   A. What are various ways of defining, categorizing, and measuring climate and culture in organizations?
   B. What organizational concepts or characteristics seem to promote a more favorable (effective or quality-oriented) climate and culture?
   C. In effective or quality-oriented organizations, what are the organizational concepts or climate and culture dimensions that promote effectiveness, quality, or high performance?

III. From the Higher Educational Literature

   A. What ways of defining, categorizing, and measuring climate and culture have been used in higher education?

B. What organizational characteristics or structures are related to climate and culture?
C. What organizational characteristics or structures are related to student outcomes?
D. What organizational strategies or practices, designed to improve teaching and learning, can be identified?
E. How are organizational strategies or practices related to climate and culture?
F. How are organizational strategies and practices related to outcomes?
G. How are climate and culture related to student outcomes?

The review then concludes with sections that:

IV. Contrast the Organizational and Higher Educational Literatures' Perspective on High-Performing Organizations with Respect to:

   A. Climate and culture;
   B. Organizational characteristics and structure; and
   C. Organizational strategies and practices.

V. Develop a Revised Framework for Research

VI. Suggest Ideas or Implications for Practice

Literature Search Strategy

Conducting a review of the literature for material in which the organizational context of colleges and universities is directly or indirectly linked to teaching and learning outcomes in undergraduate education involved a many-faceted approach. First, organizational context was broadly defined to include organizational characteristics, structures and processes; institutional culture, climate, and environment; and practices designed to improve teaching and learning. Structures investigated were administrative, managerial, organizational, and governance. Processes examined were decision-making, planning, change and innovation, resource allocation, and leadership. Practices to improve teaching and learning included faculty and program development, evaluation, rewards, incentives, and promotions. Outcomes investigated included student academic achievement, attitudes, behavior, job performance, motivation, satisfaction, and quality.

Based on the above approach, a computer search for journal articles which linked organizational context key words and outcomes was conducted in the literature bases in business (ABI Inform), education (ERIC), psychology (Psycalert and Psycinfo), and sociology (SocAbstracts). This yielded over 5,865 abstracts for the period 1980 to the present. A search for monographs and books was also conducted. Relevant monographs from the *New Directions* series published by Jossey-Bass and from the *ASHE-ERIC* and *AAHE-ERIC Research Report* series were selected. Finally, key books and classic works in the business and higher education literature were identified.

These articles, monographs and books were reviewed and evaluated. Over 500 works were extracted and summarized in a common format. The literature search that follows is based on a synthesis of these works.

The literature search did not focus on literature on student climate and culture, on faculty climate and culture, and on curriculum practices. These are all part of other NCRIPTAL research program efforts.

Performance Measures in Higher Education: Effectiveness, Efficiency, Quality and Student Outcomes

The purpose of the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL), funded by the Office of Educational Research and Improvement (OERI), broadly stated, is to discern what will improve teaching and learning in undergraduate education. One might rephrase the purpose to say that the goal of the research center is to provide direction to improve the *effectiveness* or *quality* of teaching and learning in undergraduate education. Indeed, the focus of educators, administrators, legislators, governors, parents, and students today is the enhancement of the quality of undergraduate education. Many of the activities transpiring in the higher education arena are activities designed to improve the quality of undergraduate education. Therefore, it is appropriate for us to address quality as we explore the organizational context to improve postsecondary teaching and learning.

Conflicting Concepts

In *Investment in Learning*, Bowen (1977) discusses American higher education as one consolidated system. This approach is useful because it allows us to consider the higher educational system as an industry. According to Bowen, American higher education "*is* an industry that has, over time, acquired certain well-defined functions. In performing these functions, it engages in 'production'" (p. 7). This metaphor allows us to discuss higher education in terms of its products or *outcomes*, its *effectiveness*, its productivity or *efficiency*, and its *quality*.

Astin (1977), likewise, discusses the industry approach to describing the function of higher education; he calls it the "Industrial Model of Higher Education" (p. 11). However, he finds this analogy not entirely applicable to higher education because it ignores the impact that colleges and universities have on their students. According to Astin,

> Although it is possible to assess the output of a plant in terms of the number and quality of its products, the impact of a college is not necessarily reflected in the number of graduates or even in the quality of their achievements (p. 12).

If we keep in mind, then, that the outcomes of higher education are not strictly analogous to the products of industry, we still find the industrial model to be a useful way of describing the functioning of higher education. The concepts of effectiveness, efficiency, and quality, although terms typically used in discussions of the management of industrial organizations, may be applied to higher education as well.

Effectiveness. Effectiveness is the broadest of the three concepts we are examining; in fact, many would argue that it subsumes the concepts of efficiency and quality. For example, an organization may be efficient without being effective; however, an effective organization will most likely be efficient. An organization that is of high quality will also be effective. In determining the effectiveness of an organization, one must consider its purposes as well as its outcomes. Any one organization may have several purposes and produce multiple outcomes. Effectiveness is determined by the criteria established for desired outcomes and the levels of performance expected.

Currently, effectiveness is one topic in higher education that is generating a great deal of attention and controversy. Cameron and Bilimoria (1985) cite theoretical, empirical, and practical reasons why the search for relevant criteria of effectiveness remains a primary activity of college and university administrators and researchers. Theoretically, the construct of effectiveness lies at the very center of all organizational modes; "all conceptualizations of the nature of organizations have embedded in them notions of the nature of effective organizations, and of the differences that exist between effective and ineffective organizations" (p. 101). Empirically,

> The construct of effectiveness is here to stay because it is the ultimate dependent variable in institutional research. . . . The need to demonstrate that one academic program, structure, reward system, administrative style, curricular design or whatever is better in some way than another makes the notion of effectiveness a central empirical issue (p. 101).

And finally, practically, the need to evaluate effectiveness in higher education will not dissipate because of the nature of the judgments that must be made in higher education; for example, to which institution to award a research grant or in which department to reduce costs are decisions that depend on judgments about effectiveness.

How, then, is effectiveness to be defined? According to Cameron,

> Effectiveness is a construct, and as such, is a mental abstraction. It cannot be pinpointed, counted, or observed since it is primarily a sense-making device used to interpret reality. No precise boundaries exist for determining what is and what is not effectiveness; hence, it is possible to determine a necessary but never a sufficient set of indicators for the construct. Like almost all terms in our language, the meaning of effectiveness is socially determined. Some disagreement over its definition has and probably will continue to exist. Consequently, by differentiating effectiveness from other concepts we are reflecting our own biases about what effectiveness means (1985b, pp. 1-2).

In a special issue of *The Review of Higher Education* focused on institutional effectiveness, approaches to defining effectiveness at various subunit levels within the institution as well as at the institutional-level were described (Cameron & Chaffee, 1985). For example, Kleeman and Richardson (1985) introduce a "bottom-up" approach to assessing ten domains of effectiveness based on student perceptions; effectiveness was operationally defined as "the congruence between the importance of an activity and its perceived level of achievement" (p. 6). Peterson and Blackburn's (1985) nontraditional approach to effectiveness in higher education is based on the argument that effectiveness criteria may change for faculty depending on their career stage. Particular indicators of effectiveness depend on the environmental circumstances faced by faculty, and criteria associated with the faculty as a group may be different from criteria associated with individual faculty members. Whetten and Cameron (1985) focus on administrative performance, defined through eight administrative characteristics, as the criterion of effectiveness in higher education. Faerman and Quinn (1985) warn that ineffectiveness may result from a single-minded pursuit of a specific value or criterion of effectiveness, and therefore, they advocate the identification of indicators of ineffectiveness as well as of effectiveness in higher education. Finally, Cameron and Bilimoria (1985) compare the major models of organizational effectiveness: the Goal Model (effective organizations accomplish their stated goals), the System-Resource Model (effective organizations acquire needed resources), the Internal Process Model (effective organizations are absent internal strain), the Strategic-Constituencies Model (in effective organizations all strategic constituencies are at least minimally satisfied), the Competing Values Model (the emphasis of the organization in four major areas matches constituent preferences), the Legitimacy Model (the effective organization survives as a result of engaging in legitimate activities), and the Ineffectiveness Model (the effective organization is absent characteristics of ineffectiveness). Although no one model provides the perfect approach to assessing effectiveness in higher education, Cameron and Bilimoria's criticism provides useful insights in what each model contributes to an understanding of effectiveness.

Efficiency. Efficiency is a term often substituted for effectiveness, but its meaning really is distinct. In fact, efficiency is a quantitative measure of effectiveness. Generally, when discussing efficiency, one measures the ratio of inputs, such as energy, finances, time or human resources, to outputs, such as the number of units produced or level of achievement attained relative to a standard imposed. Efficiency is measured in terms of other expressed ratios, such as *resource-outcomes*, *cost-revenue*, *cost-effectiveness*, or *cost-benefit* (Bowen, 1977, p. 18).

Both Cameron (forthcoming) and Bowen (1977) discuss how the concept of efficiency can be applied to higher education. In inquiring about the efficiency of higher education, one may ask if American higher education is worth what it costs, or as Bowen phrases the question, "Has the American higher educational system become a ponderous, bloated,

wasteful enterprise, expanded out of all proportion to the genuine returns it yields, or is it an undernourished enterprise that produces outcomes of far greater value than the resources it uses?" (p. 18). Cameron focuses the concept of efficiency in higher education in the context of financial resources. Simply stated, "An efficient institution is one that has little waste and few uncommitted resources. Tightly controlled financial resources generally assure high efficiency" (n.p.).

However, as Bowen illustrated, determining whether or not the system of higher education is efficient or even whether or not an institution is efficient is a difficult task primarily because neither the costs nor the outcomes can be measured precisely in dollars. Efficiency is based on a judgmental comparison of costs and outcomes and not on precise comparisons of easily measurable dollar amounts.

Quality. Like efficiency, quality is a specific measure of effectiveness; however, unlike efficiency, it is a qualitative measure and not a quantitative measure. Quality is primarily a value judgment made by a professional about how good a performance or an outcome is.

Defining quality, according to Cameron (forthcoming), is like defining effectiveness. Quality, like effectiveness, has no basis in objective reality per se. It, too, is a mental abstraction used to interpret reality; it cannot be pinpointed, counted, or observed. No precise boundaries exist, so it is impossible to identify a necessary and sufficient set of indicators for quality. According to Cameron, "Any attempt at definition reflects the biases of the definer as much as the inherent meaning" of the word (n.p.).

The following are examples of some ways quality has been defined in higher education:

> . . . "Quality in higher education" means a system of colleges and universities that enhances the lives of all students, that challenges the brightest and helps the poorly prepared to enter the mainstream of American society. "Quality in higher education" means basic and applied campus research that is judged excellent by other researchers and those who use research (Prichard Committee on Higher Education in Kentucky's Future, 1981, p. 11).

> . . . Quality is good carpentry, good plumbing, good poetry . . . the determination of faculty members, deans, . . . [and] presidents to transcend themselves to reach higher than their grasp (Enarson, 1983, p. 8).

> . . . Judgments about the quality of American higher education are based on little more than folklore, nostalgic reminiscences, and personal preferences (Warren, 1983, p. 5).

> . . . Students receive a fair education for their investment of time and money (North Central Association of Colleges and Secondary Schools, cited in Stevens & Hamlett, 1983, p. 30).

Changing Perspectives on Quality

As the examples above illustrate, and as discussed by Astin (1982, 1984a, 1985) and others, definitions of quality can be categorized as follows:

1. The mystical or nihilist approach: Quality cannot be defined or no valid assessments of quality can be made;

2. The reputation approach: Quality is whatever people think it is; it is based on consensus of opinion; usually professionals assumed to be competent to make judgments about quality determine which institutions, programs or departments are of high quality;

3. The resources approach: Quality is equated with an educational institution's resources, e.g., number of higher trained faculty and merit scholars, affluence, facilities, etc.; and

4. The results approach: (a) Outcomes—Quality is measured by its products, e.g., the number of alumni who achieve positions of prominence; or (b) Value-added—Quality is a measure of the institutional impact on student development.

Morgan and Mitchell (1985) evaluated the literature on excellence in secondary education. They determined that there are six perspectives on educational excellence, which are: (1) The political economy approach: Excellence is measured by how well schools and colleges support and enhance the political and economic strength of the nation; (2) The productivity approach: Excellence is measured by how efficiently schools and colleges convert inputs into outputs; (3) The value-added approach: Excellence is measured by how well schools and colleges enhance individual development; (4) The producer-consumer quality approach: Excellence is determined by the quality of producers (teachers) and consumers (students); (5) The content approach: Excellence is judged by the quality and scope of the curriculum; and (6) The eclectic approach: Excellence is evaluated on a variety of dimensions, including effectiveness, efficiency, and characteristics of participants.

It is evident that the approach currently receiving the greatest amount of attention in discussions about the quality of higher education is the value-added approach. It is no longer adequate to discuss the quality of higher education in terms of reputations, rankings, or resources. Our attention, too, is riveted on the development of the total student, in both the cognitive and affective domains, in the college and university environment.

Student Outcomes and Student Learning as Organizational Measures

When surveying the literature discussing the outcomes of higher education, one is easily impressed by the immense variety of outcomes mentioned. No one has yet determined what the outcomes of a higher education are or should be. However, numerous categories of outcomes are offered. This section will not identify all of the outcomes mentioned in the literature nor all of the approaches; however, a brief summary of some of the outcomes and approaches will be presented. More detailed discussions of the cognitive outcomes, affective outcomes, and categorization of outcomes are offered in the literature reviews of the other research programs in NCRIPTAL.

Feldman and Newcomb's (1969) study of the impact of college on students was the first major comprehensive examination of how colleges and universities influence the following student outcomes: values, goals, and life satisfactions.

In a report prepared for the Carnegie Commission on Higher Education, Withey (1971) and the chapter authors discuss economic-oriented change in students, such as better job opportunities and better working conditions, as well as higher education's effect on life-style, use of mass media, and political behavior.

Astin, Panos, and Creager (1967) devised a classification schema of student outcomes based on a matrix of type of outcome (affective or cognitive), and type of required data (psychological or behavioral). However, in addition to this schema, Astin (1977) adds a time dimension to that classification: outcomes achieved during college and outcomes realized after college.

In Bowen's classification, there are two types of outcomes: (1) goals for individual students (cognitive learning, emotional and moral development, practical competence, satisfaction and enjoyment from the college experience, and avoidance of negative outcomes for the students), and (2) goals for society (advancement of knowledge, discovery and encouragement of talent, advancement of social welfare, and avoidance of negative outcomes for society).

In the 1970s, the National Center for Higher Education Management Systems (NCHEMS) executed a project to develop a set of widely accepted outcome constructs that describe what an "educational outcome" is. According to their definition,

> "Educational outcomes" refer to any results or consequences of an educational institution and its programs. The outcomes may be direct results of institutional activities, such as academic degrees, technological discoveries, student knowledge and skills, or institutional staff salaries. Conversely, there may be later consequences of those outcomes, such as individual prestige, higher family income, more educated work force, or effects of staff salaries on the local economy (Lenning, Lee, Micek, & Service, 1977, p. 1).

Ewell (1983) reviewed the literature and found at least three different approaches to identifying and measuring student outcomes: (1) the academic investigative approach, evidenced by psychologists' work on a student's cognitive development and by sociologists' work on social mobility and socialization; (2) the student-personnel perspective, evidenced by testing and counseling activities to classify students appropriately into different kinds of treatment groups and to provide evidence of the degree to which particular programs are meeting student needs; and (3) the management perspective, using outcomes information as part of the resource allocation process and in decision making.

Each approach entails different goals, and consequently, different data requirements. These differences render the measurement task even more confounding. Ewell (1985) has edited an entire issue of the *New Directions for Institutional Research* series focusing on the assessment of educational outcomes.

Withey (1971) and his colleagues concluded that not only does going to college yield benefits, but every added year of postsecondary education yields additional impact and benefits. This leads us to explicitly identify one education outcome that is not identified in most of the approaches above: retention. College persistence and retention are critical outcomes of the higher education experience and, therefore, will receive a greater share of our attention in this research project.

Organizational Practices to Improve Learning Outcomes

Our research framework identifies six categories of organizational practices that influence the teaching and learning environments of colleges and universities. They are: (1) Academic Program Support Systems; (2) Faculty Support Systems; (3) Enrollment and Student Support Systems; (4) Resource Allocation; (5) Evaluation and Assessment Systems; and (6) Academic Information Systems. A later discussion will identify institutional practices within those categories that have proven successful in improving the undergraduate learning experience.

Organizational Culture and Climate: An External Perspective

Reviewing the development of theory and research in organizational studies reveals a continual tension between rational, empirical, explicit approaches and nonrational, qualitative, implicit approaches. At various times each of these paradigms has taken center stage in academic work, and each has led to important insights and contributions not available from the other. For example, the early rationalistic scientific management principles of Frederick Taylor (1911) in the early part of the 1900s and the administrative principles of Gulick and Urwick (1937) gave way to an emphasis on informal, nonrational group norms (Whyte, 1943) and "the Hawthorne effect" in the 1940s and 50s (Homans, 1950; Roethlisberger & Dickson, 1939). The 1960s brought back empirical multivariate analyses of organizational structure, technology, and size (Blau & Scott, 1962; Pugh et al., 1969). But the late 1970s and 80s are characterized more and more by an emphasis on culture and climate—a return to the nonrational aspects of organizations (*Administrative Science Quarterly*, 1983).

Methods of investigation also have shifted back and forth between empirical measurement studies and case studies or ethnographies as each intellectual paradigm has emerged as the predominant approach. Currently, ethnographic research and qualitative methods command a great deal of attention in the published literature, although the central place of the computer in modern research has guaranteed that empirical measurement will never be superseded entirely. However, the dominance of the nonrational aspects of organizations and their associated qualitative methods in modern organizational studies is highlighted by Ouchi and Wilkins (1985):

> ...the study of organizational culture has become one of the major domains of organizational research, and some might even argue that it has become the single most active arena, eclipsing studies of formal structure, of organization-environment research, and of bureaucracy (p. 458).

This section reviews the latest phenomenon of interest in organizations—the recent literature on organizational culture and climate—by tracing the intellectual roots of these two concepts, discussing their current definitions and dimensions, the main approaches to their investigation, and their applicability to an investigation of the teaching/learning process in higher education. Whereas not all authors identify distinctions between the concepts of culture and climate, this review treats each separately and points out their distinctiveness in the study of organizations. A review of the organizational culture literature comes first, followed by the literature on organizational climate.

Organizational Culture

Like many concepts in the social sciences, the definition of organizational culture is neither precise nor consensual. Substantial variation exists in the perspectives of writers on this subject. (See reviews and critiques of the culture literature by Burrell and Morgan, 1979; Sanday, 1979; Gregory, 1983; Louis, 1983; Morgan et al., 1983; Smircich, 1983; Ouchi & Wilkins, 1985; Roberts, 1970; and Bhagat & McQuaid, 1982.) Part of this diversity is due to the two separate disciplines from which the concept itself emerged—cultural anthropology and sociology.

Intellectual Foundation

Most of the current, popular work on organizational culture has focused on business organizations, and it has relied upon the "functionalist" tradition in anthropology. This tradition (e.g., Malinowski, 1961; Radcliffe-Brown, 1952) focuses on the group, organization, or society as a whole and considers how the practices, beliefs, and values function to maintain social control. The researcher interprets phenomena in terms of their impact on organizational functions by recounting events and attributes arising from organizational activities. A second school of thought in anthropology, the "semiotic" tradition, has had major impact on a substantial amount of the scholarly (non-popularized) literature of the last decade or so. This tradition is represented by Geertz (1973) and Goodenough (1971) in which obtaining the "native's point of view" and "thick description" predominate. Language, symbols, and rituals are the principle artifacts by which the native's point of view

is discerned, and intuition and immersion by researchers in the phenomena of study is required. These two traditions differ primarily in whose point of view is legitimate (researchers or natives) and in the level of analysis (organization versus individual cognitions). The functionalist tradition views culture as a component of the social system as manifested in organizational behaviors; the semiotic tradition views culture as residing in the minds of individuals. The former relies on researcher based data; the latter on the natives' data. The functionalist tradition views culture for something; the semiotic tradition views culture as something.

Authors influenced by the functionalist tradition include Ouchi (1981), Pascale and Athos (1981), Deal and Kennedy (1982), Peters and Waterman (1982), Schein (1983a, 1983b), and Kilmann, Saxton, and Serpa (1985). The semiotic tradition is represented by Pondy (1978), Smircich (1983), Gregory (1983), Barley (1983a, 1983b), Evered (1983), Van Maanen (1979), and Frost and Morgan (1983). One of the best recent discussions of the historical and intellectual roots of the culture concept in anthropology is found in Allaire and Firsiruto (1984).

In sociology, Durkheim's (1893, 1933) early emphasis on ritual and myth along with Weber's (1947) and Toennies' (1957) distinctions between implicit versus explicit features of social life gave rise to an emphasis on the nonrational aspects of organizations in this discipline. Whereas empiricism has dominated sociology for the last several decades, the banner of cultural analysis was carried by influential publications such as Goffman's (1959) emphasis on face-saving devices, Berger and Luckman's (1966) focus on sense-making and interpretation systems, the entire symbolic interactionist perspective (Blumer, 1969), which reinforced social construction of reality. Other contributions that had influence in developing this tradition in sociology were Selznick's (1949) analysis of the Tennessee Valley Authority, Whyte's (1943) analysis of gang behavior in Chicago slums, Stinchcombe's (1959) analysis of construction firms, Kanter's (1968) work on utopian communities, Spradley's (1970) skid row community analyses, and Clark's (1970) analysis of colleges. The sociological emphasis on culture more often than not considered the concept to be an independent variable for explaining organizational structure, performance, or activity. The anthropological tradition was more likely to treat it as a dependent variable, i.e., the object of explanation. One of the best recent discussions of the sociological foundations of culture is Ouchi and Wilkins (1985).

Definitions and Dimensions of Culture

The lack of precision and consensus regarding the definition of culture (and its differences from the concept of climate) has a long tradition. Similar ambiguity has existed and continues to exist in the fields of anthropology and sociology. It is possible, however, to identify two main perspectives on culture in organizational studies. One perspective uses culture as a variable—something an organization *has*. The other perspective uses culture as a root metaphor—something an organization *is*. In the next section these two perspectives are elaborated, but it is helpful to identify the distinction now because most published definitions of culture assume the former perspective. An explanation of the latter perspective will be undertaken later.

A representative sample of the definitions of culture used by different authors in the recent published literature will point out both the commonalities and the differences in the approaches taken. For example, culture is variously defined to be:

> ...a shared appreciation system and a set of beliefs that help distinguish aspects of situations from one another (Sapienza, 1985).
>
> ...the amalgam of shared values, behavior patterns, mores, symbols, attitudes, and normative ways of conducting business that differentiate one organization from all others (Tunstall, 1985).
>
> ...the taken-for-granted and shared meanings that people assign to their social surroundings (Wilkins, 1983).
>
> ...distinct and locally shared social knowledge (Wilkins & Ouchi, 1983).

...the pattern of basic assumptions that a group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration (Schein, 1984).

...a set of commonly held attitudes, values, and beliefs that guide the behavior of an organization's members (H. Martin, 1985).

...informal values, understandings, and expectations indicated through symbolic structures, myths, heroes, and precedents (Leitko, 1984).

...the shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes, and norms that knit a community together (Kilmann et al., 1985).

...a system of property rights or economic and social relations that define the position of each individual with respect to others regarding the use of resources (Jones, 1983).

...an integrative framework for sense-making, both a product and a process, the shaper of interaction and an outcome of it, continually being created and recreated through these interactions (Jelinek et al., 1983).

...a common set of ideas shared by group members; a theory held by individuals of what their fellows know, believe, and mean (Keesing, 1974).

...the shared beliefs, ideologies, and norms that influence organizational action manifested through overriding ideologies and established patterns of behavior (Beyer, 1981; Pfeffer, 1981; Mitroff & Kilmann, 1976; Martin, 1982; Schein, 1983a, 1983b; Fiol & Lyles, 1985).

...a core set of assumptions, understandings, and implicit rules that govern day-to-day behavior in the workplace (Deal & Kennedy, 1983).

...a set of taken-for-granted assumptions, expectations, or rules for being in the world, often referred to as a paradigm, map, frame of reference, interpretive schema, or shared understanding (Adler & Jelinek, 1986).

...collectively held and sanctioned definitions of the situation (Bate, 1984).

...a relatively enduring, interdependent symbolic system of values, beliefs, and assumptions evolving from interacting organization members that allows them to explain and evaluate behavior and ascribe common meanings to it (Schall, 1983).

...what is directly describable about members of a community (Ashforth, 1985; Sathe, 1983).

...the way we do things around here (Arnold & Capella, 1985; and others).

Virtually all of these definitions view culture as something the organization has (not is), and they are dominated by the anthropological functionalist paradigm. In general, they can be categorized as one of three types: (1) social interpretation definitions, (2) behavioral control definitions, and (3) organizational adaptation definitions. Social interpretation definitions focus on the interpretation schemas, meanings, or frames of references of individuals as indicators and components of culture. Behavioral control definitions focus on patterns of interaction or activities that define shared organizational behavior. Organizational adaptation definitions emphasize habituated solutions to commonly encountered organizational problems (e.g., integration and adaptation problems).

It is also important to point out that a majority of these definitions focus on attributes of culture that are enduring and are centered on values, beliefs, and assumptions. These attributes distinguish the concept of culture from the concept of climate which, as is explained later, centers on individual attitudes and perceptions which may change much more quickly than culture.

In addition to variation in the definitions of culture, authors have identified (often implicitly) a variety of dimensions that help organize the core attributes of the concept. The importance of dimensions is that they serve as the framework around which a theory of organizational culture may be built in the future. As yet, no such theory exists, but by specifying the core dimensions, researchers and theorists can begin identifying both the phenomena to measure and the relationships among the components of culture.

Several authors have attempted to develop frameworks of important dimensions of culture, but in most cases they are not based on a theoretical and empirical foundation but are merely common-sense propositions or long lists of itemized factors. A sample of these frameworks will help illuminate the diversity of approaches proposed.

Sathe (1983), Schall (1983), and Schein (1984) are among the many authors who focus on cultural strength and/or cultural congruence as the main dimensions of interest. Strength is usually defined as the power of the culture to enforce conformity, while congruence refers to the fit and similarity among the various cultural elements. The general argument is that strength and congruence are associated with high organizational effectiveness. Albert and Whetten (1985) identified a holographic versus ideographic dimension as being critical in studying culture. Holographic culture exists when all organizational units share a common culture in addition to their unique culture. Ideographic culture exists when each unit possesses only its own specialized culture. Holographic cultures are hypothesized to be better at executing strategies whereas ideographic cultures are hypothesized to be better at maintaining adaptability to diverse environmental conditions.

Arnold and Capella (1985) proposed a two-by-two matrix of cultures based on a strong-weak dimension and an internal-external focus dimension. The best cultures, they claimed, were strong-externally focused cultures. Deal and Kennedy (1982, 1983) proposed another two-by-two typology of cultures based on a speed of feedback dimension (high speed to low speed) and a degree of risk dimension (high to low). The four emerging types of cultures, each of which are appropriate under a different environmental condition, are (1) tough-guy/macho (high speed-high risk), (2) work hard/play hard (high speed-low risk), (3) bet your company (low speed-high risk), and (4) process (low speed-low risk). Ernest's (1985) two-by-two model used people orientation (participative-nonparticipative) and response to the environment (reactive-proactive) to develop four types of cultures: interactive (participative-reactive), integrated (participative-proactive), systematized (nonparticipative-reactive) and entrepreneurial (nonparticipative-proactive). He argued that no one culture type is best, but organizations in the same industry should have similar cultures. Riley (1983) proposed that culture was best analyzed by two main factors, structures and symbols. The most important structures, according to Riley, are (1) means of achieving significance, (2) means of acquiring legitimacy, and (3) means for achieving dominance. The most important symbols are (1) verbal, (2) action, and (3) material. The intersection among each type of symbol and structure identifies a factor that helps diagnose corporate culture.

Bate (1984) analyzed language patterns, stories, and rituals in three organizations and proposed six dimensions of culture that helped organize patterns in his findings: unemotionality, depersonalization, subordination, conservatism, isolationism, and antipathy. Gordon (1985) assessed "management climate," which he later relabelled "corporate culture," based on a Hay Associates questionnaire administered over several years. The items clustered into 11 dimensions of culture: clarity of direction, organizational reach, integration, top management contact, encouragement of individual initiative, conflict resolution, performance clarity, performance emphasis, action orientation, compensation, and human resource development. Hofstede (1980) has a well-known set of dimensions for differentiating national or societal cultures, and several authors have made attempts to apply them to corporate cultures (e.g., Jaeger, 1986). These dimensions are power distance, uncertainty avoidance, individualism, and masculinity.

Martin, Feldman, Hatch, and Sitkin (1983) identified seven common themes in the stories that people tell to reflect their culture. Most organizations project their cultural values through some sort of unique stories, yet those stories are characterized by certain common themes or questions: How will the organization deal with obstacles? How will the boss react to mistakes? Will the organization help me if I have to move? Will I get fired? Can the little person rise to the top? Is the big boss human? What happens when I break rules? Each story relates to conflicts between organizational needs and members values. G. Jones (1983) argues that culture is a product of institutional arrangements to regulate transactions and exchanges among individuals, and that five characteristics describe those transactions. These characteristics define "property rights": vested in person or position, length of contract, degree of preciseness in specifying rights, degree of inclusiveness of facets of employment, configuration of rights in the organization. Strong property rights indicate strong culture: i.e., vested in persons, precise, inclusive, and enduring.

Kets de Vries and Miller (1986) focus on dysfunctional organizational cultures arising from pathological strategies and structures. They identify paranoid, avoidant, charismatic, bureaucratic, and politicized types of cultures. Trice and Beyer (1984) concentrate on rituals or rites as the main indicator of cultural forms. They suggest that these performances are the most appropriate way to capture the complexity of an organization's culture. The six rituals identified are: rites of passage, rites of degradation, rites of enhancement, rites of renewal, rites of conflict reduction, and rites of integration.

Cameron (1985a) identified four main types of cultures in organizations based on the dimensions resulting from information processing research, organizational theory, and leadership studies. The four types are clan cultures (family-oriented and personal), hierarchy cultures (formalized and efficient), market cultures (competitive and market-driven), and adhocracy cultures (creative and entrepreneurial). In studies of colleges, he found that different cultural types were associated with different types of organizational effectiveness.

The dimensions of culture mentioned above differ in their emphasis on underlying organizing factors versus types of indicators. The long lists of factors identified by authors such as Trice and Beyer, Bate, Gordon, and Kets de Vries and Miller tend to be enumerations of indicators or *attributes of cultures*. The 2-x-2 matrices, on the other hand, tend to identify ways to organize these factors into *typologies of cultures*. A close look at the empirical as well as the theoretical work on culture suggests that the following are the main, and potentially most fruitful, dimensions to be pursued in future culture research and theory-building: (1) cultural strength (power to control behavior), (2) cultural congruence (fit or homogeneity in cultural elements), (3) cultural type (based on general organizing dimensions) (4) cultural continuity (the extent to which consistency in culture has been maintained over time), (5) cultural distinctiveness (the uniqueness of the culture) and (6) cultural clarity (the extent to which the culture is unambiguously presented).

Most authors have identified strength of culture as the single most critical dimension—certainly the most frequently identified. Whereas Sathe (1983), Cameron (1985c), Wilkins and Ouchi (1983), and Schein (1984) suggested that cultural strength can be either an asset or a liability (i.e., it can lead to stagnation and groupthink or to innovation and competitiveness), other authors identify it as an unabashed prerequisite to organizational effectiveness. For example,

> A strong culture has almost always been the driving force behind continuing success in American business. Every excellent company we have studied is clear on what it stands for, and takes the process of value shaping seriously. In fact, we wonder whether it is possible to be an excellent company without clarity on value (Deal & Kennedy, 1983).

Approaches to Investigating Culture

As mentioned at the first of the preceding section, culture is generally treated by authors in one of two ways: something the organization is, or something the organization has. The definitions and dimensions just discussed largely focused on the latter. A brief discussion of the former perspective is in order here for purposes of contrast, followed by a discussion of three main methods used by investigators to assess culture.

Treating culture as something an organization is presupposes that culture is a metaphor, in the same way that "open system," "bureaucracy," "organized anarchy," or "machine" are other widely used metaphors to describe the nature of organizations. The purpose of such a metaphor is simply to highlight and uncover aspects of the organization that ordinarily are ignored by observers—in this case, the nonrational, underlying assumptions that drive organizational behavior and the shared interpretive schema of organizational members. Culture as a metaphor goes beyond the instrumental view of those who treat culture as a variable in organizations. Instead it defines culture as the "shared knowledge," "shared meaning," and "the unconscious mental operation" of organizational members (Agar, 1982; Geertz, 1973; Goodenough, 1971; Hallowell, 1955; Rossi & O'Higgins, 1980; Smircich, 1983). This implies that culture cannot be observed directly, but it exists only in the heads of those associated with the organization. Studying culture, therefore, requires that the

interpretation schemas of these "natives" be obtained. Approaches ranging from psychoanalytic procedures to story or linguistic analysis characterize the research in this tradition (e.g., Chomsky, 1972; Mitroff, 1983; Pfeffer, 1981; Pondy, 1983).

This use of culture as a root metaphor highlights the continuing controversy regarding how culture should best be assessed. Some authors argue that quantitative techniques have no place in empirical studies of culture; others assert that multiple methods—including quantitative and qualitative—are appropriate (see Louis, 1984; Ouchi & Wilkins, 1985; Van Maanen, 1979, for examples). Thus far, three main approaches have been taken in investigations of organizational culture, but little integration among them is present. The three are: (1) holistic studies following the tradition of functional anthropology; (2) semiotic or language studies; and (3) quantitative studies mainly relying on survey research or experimental manipulation (see Ouchi & Wilkins, 1985).

Holistic studies. An emphasis on the whole organization and its culture (i.e., culture as a variable) typify these studies. Important examples in this category include Rohlen's (1974) participant observation of a Japanese bank, Kreiger's (1979) portrait of a San Francisco rock music station, Van Maanen's (1973) description of the socialization of police recruits, Manning's (1979) study of the world of detectives, Dyer's (1982) description of a computer company, Wilkins' (1983) study of subcultures in an electronics company, Trice and Beyer's (1985) study of the routinization of organizational founders, and Barley's (1983b) study of role evolution in the introduction of CAT scanning equipment in two hospitals. Most of these studies rely on field observation for 6 to 20 months, although a few use quantitative techniques such as content analysis (e.g., Martin et al., 1983). Archival and historical documents have been substituted for direct observation by authors such as Clark (1970), Boje (1983), Kanter (1968), and Martin and Siehl (1983), thus permitting a longitudinal perspective not possible with participant observation.

Semiotic studies. A focus on language and metaphor characterizes these studies, as exemplified by Gregory's (1983) study of the language of Silicon Valley professionals in a rapidly changing environment, Barley's (1983a) study of the language of funeral directors, Pondy's (1983) study of the role of metaphor in Communist China and an African tribe (the Nuer), Huff's (1983) study of the language of different subgroups within a graduate school of management, and Pondy and Huff's (1983) study of the language of public documents.

Quantitative studies. Like studies of organizational climate, these studies mainly rely on survey methodology and quantitative data analysis. For example, Cameron (1985d) studied the relationship between strength, congruence, and type of culture and nine dimensions of organizational effectiveness. Ouchi and Johnson (1978) used questionnaires to differentiate the cultures of two different firms. O'Reilly (1983) surveyed employees in high tech firms in Silicon Valley to test the association between strong culture and employee identification with the firm. Bowditch et al. (1983) compared climate and culture surveys in the merger activity of two banks. Beck and Moore (1983, 1984) report studies using projective measures to assess norms and culture in Canadian banks. Meyer (1982) used questionnaires and content analysis of interview data to examine shared values. And Martin and Powers (1983) compared information from stories with quantitative information in assessing their vividness and persuasive impact on employees.

These three different approaches to the study of culture are associated with the different perspectives discussed in previous sections. Holistic studies generally treat culture as an independent variable that can be manipulated by managers. Various books and articles offering practical advice to managers in organizations have emerged from this view, namely, Peters and Waterman (1982), Ouchi (1981), Deal and Kennedy (1982), and others. These and other works suggest manipulating the organization's mission (Clark, 1970), ceremonies (Trice & Beyer, 1984), myths (Boje et al., 1982), and stories (Mitroff & Kilmann, 1976) in order to manage culture and improve organizational effectiveness.

Semiotic studies, on the other hand, are more likely to treat culture as a dependent variable. It is assumed that organizational culture emerges from an overall societal culture (Hofstede, 1980; Jaeger, 1986) and is a product of historical events and activities that cannot be manipulated by management. The primary intent in this research is to discover and

describe an organization's culture, not to determine how it can be modified to enhance effectiveness.

Quantitative approaches occupy a central approach in both holistic and semiotic studies in that they are used in both independent variable and dependent variable studies. Some quantitative studies have attempted to identify and validate dimensions of culture or develop typologies and, thus, have treated it as a dependent variable (e.g., Adler & Jelinek, 1986; Albert & Whetten, 1985; Allaire & Firsiruto, 1984). Other studies have tried to find relationships between culture and other individual or organizational outcomes and, thus, have treated culture as an independent variable (e.g., Arnold & Capella, 1985; Bate, 1984; Bresser & Dunbar, 1986).

Applicability of the Culture Literature to Higher Education

Because few studies have been done analyzing organizational culture in a higher education context, it is necessary to borrow and extrapolate potentially fruitful findings from investigations in other organizational sectors. This is not without precedent in the higher education literature, since several of the important contributions to understanding and managing colleges and universities were first developed or applied in business organizations. Few of the following propositions, therefore, emerged directly from research in higher education, but they may serve as hypotheses for future research where the concept of culture is applied in that context. These propositions all are stated using culture as an independent variable inasmuch as it is with that perspective that the work at The University of Michigan will be conducted. Propositions relating to the nature of culture itself (as a dependent variable) are not included here.

1. Employees are more committed to organizations where cultures are richer (i.e., have more stories told about them) (Wilkins, 1978).

2. The culture of clan type organizations is inherently stronger (i.e., has more impact on individual's behavior) than the cultures of markets and hierarchies (Wilkins & Ouchi, 1983).

3. Strong cultures lead to organizational effectiveness whereas weak cultures may lead to organizational decline (Ashforth, 1985; Deal & Kennedy, 1982; Lofland, 1966).

4. Socialization practices for new employees that utilize the following characteristics lead to strong culture and, presumably, organizational effectiveness (Louis, 1980; Pascale, 1985; Siehl & Martin, 1982; Trice, 1983).
   a. Consciously using rhetoric oriented toward establishing a sense of commu nity.
   b. Convincing recruits that the organization has their best interests at heart.
   c. Cultivating jokes, stories, and sagas, and communicating them frequently to new employees.
   d. Utilizing off-site training experiences for new employees.
   e. Designing rites of passage that are communicated and rewarded.
   f. Carefully selecting entry level candidates.
   g. Inducing humility, or generating a desire to adopt the new culture, in new employees.
   h. Training new members "in the trenches."
   i. Rewarding and using control systems to reinforce the desired behaviors that are consistent with the corporate culture.
   j. Requiring personal sacrifices to enter the organization.
   k. Developing mentoring relationships.
   l. Having leaders provide constant and consistent role models.

5. No single type of culture is best in all environmental conditions (Cameron, 1985d; Ernest, 1985). There must be a match between culture and environment (Deal & Kennedy, 1983).

6. The changing demographic composition of institutions of higher education (e.g., nationality, age) may lead to changes in the culture of the organizations (Adler & Jelinek, 1986).
7. The greater the discrepancy between private organizational identity and public identity (i.e., incongruence), the lower the organizational effectiveness (Albert & Whetten, 1985).
8. Holographic cultures are less adaptive than ideographic cultures in organizations (Albert & Whetten, 1985). Diverse subcultures within a weak overall culture may be most adaptive in dynamic environments (Schein, 1984).
9. Strong cultures that also are externally oriented are more successful than weak, internally oriented cultures (Arnold & Capella, 1985).
10. Certain types of cultures are better than others at fostering organizational learning and at avoiding stagnation and "groupthink" (Bennis & Nanus, 1985; Fiol & Lyles, 1985).
11. Cultures lead to effectiveness when the organization's leader articulates a consistent vision that is clearly understood by organizational members (Cameron & Ulrich, 1986; Gordon, 1985; Tichy, 1986).
12. Changing culture also requires changing other major aspects of an organization such as strategy, structure, skills of personnel, human resource system (reward, selection, appraisal, and development systems), and so on (Kilmann, Saxton, & Serpa, 1985; Waterman, Peters, & Philips, 1980).
13. A certain amount of nonconformity must be permitted in the organization's culture in order to avoid stagnation (Sathe, 1983).
14. Cultures shift over the organizational life cycle, so that different leaders and different criteria of success become effective (Quinn & Cameron, 1983).
15. Participative cultures have more impact on effectiveness than strong and congruent cultures (Denison, 1984; Heller & Guastello, 1982).
16. Clarity of culture leads to effectiveness and arises from clear communication from the leader (Albrecht & Zemke, 1985).
17. Organizational size decreases the utility of culture for controlling behavior (Jones, 1983).
18. A well-organized work environment (i.e., consistent culture) leads to organizational effectiveness (Denison, 1984).

Organizational Climate

Although some authors have struggled to separate the definitions of organizational culture and climate, a clear distinction has emerged in the literature within the last several years. In this section, the definitions, dimensions, approaches, and research findings related to the organizational climate construct are highlighted, and the applicability to higher education research on teaching and learning outcomes is explored.

Intellectual Foundation

Climate is a more recent addition to the organizational literature than is culture, and its conceptual home is in cognitive psychology and social psychology rather than anthropology and sociology as is the case with culture. It also has developed a more consensual definition in the literature than has culture, and the ambiguity and diversity typical of the culture literature is now less typical of the climate literature than it once was. In addition, whereas multiple methods characterize culture investigations, climate research has almost universally relied on questionnaire responses (for reasons to be discussed below).

At least fourteen reviews have been published of the climate research (Ashforth, 1985; Campbell, Dunnette, Lawler, & Weick, 1970; Glick, 1985; Hellreigel & Slocum, 1974; James & Jones, 1974; Jones & James, 1979; Joyce & Slocum, 1979; Naylor, Pritchard, & Ilgen, 1980; Payne & Pugh, 1976; Powell & Butterfield, 1978; Schneider, 1975a, 1975b, 1983; Woodman & King, 1978), and to a person, each author has been critical of the climate construct. These criticisms have centered on the ambiguity of the definition; the similarity of the operational definitions of climate to other well-known concepts such as structure, leadership style, and technology; and the problem of aggregating individual climate

perceptions into an organizational climate attribute. More will be said of these criticisms below, but for now, it is important to point out that these criticisms have served an important function in helping to produce a more useful and rigorous variable for organizational research. The resolution of these issues has come mainly by relying on basic tenets of symbolic interactionism (Mead, discussed in Strauss, 1956) and information processing (Schneider and his associates, 1968, 1970, 1972, 1975, 1978, 1980, 1983) in psychology. In particular, it is now generally agreed that the climate construct arises from individuals' perceptions and interpretations of psychologically clustered events. These perceptions become "socially constructed reality" (Berger & Luckman, 1966) for individuals, and it is the aggregation of these perceptions that makes up the organization's climate. Psychologically clustered events are simply events that occur in an organization which possess enough similarity for individuals to construct meaning and develop an attitude about them. When individuals share this attitude, the organization is said to possess a climate.

A review of the literature reveals that there have been three different approaches to climate represented in empirical work. One assumes climate to be an attribute of the organization and independent of any individuals who might provide data about it. A typical definition in this approach is:

> [Climate is] a set of characteristics that describe an organization and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization (Forehand & Gilmer, 1964, p. 362).

Climate under this approach is a product of organizational characteristics such as size, structure, system complexity, leadership style, physical environment, and goals. It is assumed that the interaction of these dimensions produces climate. Partly because this approach abandoned the psychological underpinnings of the climate concept and attributed it solely to the organization, and partly because with this definition nothing isn't climate, authors using climate in this way (e.g., Fredericksen, 1968; Litwin & Stringer, 1968) have been severely criticized. Most telling are the research results that show no new variance is accounted for by the climate construct when, for example, objective measures of structure or leadership style are considered first (James & Jones, 1974). For example, in one lab study a researcher acted as the president of three different firms and, by changing his leadership style, tried to create three different organizational climates. After measuring "closeness of supervision," climate did not account for any additional variance in subjects' outcomes. Organizational climate, in this tradition, is similar to the catch-all phrase "organizational situation," and, because almost no organizational variable fits that rubric, it adds little to an understanding of organizational and individual behavior. The way in which this issue has been resolved is discussed later.

A second approach to the study of climate is represented by Campbell et al. (1970) who identified four characteristics of the organizational situation: (a) structural properties, (b) environmental characteristics, (c) role characteristics, and (d) climate. Climate is not assumed to be a product of other organizational attributes, rather it is an independent attribute by itself. In this approach climate is:

> a set of attributes specific to a particular organization that may be induced from the way the organization deals with its members and its environment. For the individual member within an organization, climate takes the form of a set of attitudes and expectancies which describe the organization in terms of both static characteristics (such as degree of autonomy) and behavior-outcome and outcome-outcome contingencies (Campbell et al., 1970, p. 390).

In this tradition climate is still an organizational attribute, but it is dependent on the perceptions of members to define it. It arises from the behaviors and policies of top management as well as from structural and context factors (Pritchard & Karasik, 1973). Assessments of climate use dimensions such as task structure, reward/performance relationships, decision decentralization, achievement emphasis, training and development emphasis, security versus risk, and openness versus defensiveness (see Campbell & Beaty, 1971). In addition to the criticism mentioned above– that this conceptualization of climate adds nothing new to our understanding of organizational behavior– studies using this

approach have also been criticized for other reasons. One criticism is that it has not been clear whether authors are presuming that climate is an individual variable or an organizational variable. The level of analysis is confused (Guion, 1973) so that precise operational definitions of climate are not possible. Another criticism is that measures of climate are exactly the same as measures of satisfaction. For example, Johanneson (1973) studied the relationship between measures of climate and measures of job satisfaction and concluded that "organizational climate failed to add new or different variance to commonly identified satisfaction factors" (p. 141). The manner in which these issues have been addressed is discussed later.

The third approach assumes climate to be grounded in the perceptions of individuals. Psychological climate is differentiated from, and a precursor to, organizational climate. This approach is based on several studies that demonstrated that climate perceptions vary on the basis of individual and job differences as much as organizational differences (e.g., Campbell & Beaty, 1971; Guion, 1973;] & Hulin, 1972; House & Rizzo, 1972; James & Hornick, 1973; James & Jones, 1974). It was found that different climates can exist within the same group or organization, therefore organizational attributes per se are not sufficient to account for climate (Joyce & Slocum, 1984). In this approach, climate is a psychological product of the interpretive and filtering process that an individual uses to make sense of the environment.

The concept of climate in the present research must be described as personalistic; climate is an individual perception. There was no attempt to restrict the climate definition to perceptions shared by members of a work group or organization. What is important to the individual is how he perceives his work environment, not how others might choose to describe it (Schneider, 1973).

Instruments developed in this third tradition have produced dimensions such as managerial supportiveness, managerial structure, concern for new employees, conflict, independence, and general satisfaction (Schneider & Bartlett, 1968, 1970), as well as disengagement, esprit, hindrance, intimacy, aloofness, thrust, production emphasis, and consideration by leaders (Halpin, 1966; Halpin & Croft, 1963). The basic criticisms of this approach have been that these psychological perceptions are merely attitudes so that climate adds nothing to the attitude literature (i.e., climate is merely an attitude), and that since climate is a psychological variable, it cannot be applied to organizations. On the other hand, this third approach has proven to be the most fruitful in research, and it is the one that has now gained the most legitimacy (Glick, 1985; Schneider & Reichers, 1983). It also has been the approach that has best addressed past challenges to the relevance of the climate construct and added value to research on organizational and individual behavior. The remainder of this section discusses the contributions of the climate construct per se as well as specific findings from empirical research.

Definitions and Dimensions

In contrast to culture, some consensus has begun to emerge regarding the definition and scope of the climate construct. This convergence has been stimulated by a substantial amount of research on climate that treats it as the dependent variable and, therefore, helps to refine the definition. Whereas some diversity continues to appear regarding the specific dimensions of climate (as is discussed below), an example of the definitions used in several of the major publications illustrates this emerging consensus.

Climate is:

> ...a widely shared and enduring perception of the organization's attributes (Allaire & Firsirotu, 1984).
>
> ...a shared and enduring molar perception of the psychologically important aspects of the work environment (Ashforth, 1985; Schneider, 1975a, 1975b; Woodman & King, 1978).
>
> ...individual perceptions of the favorability of the work context (Ferris & Gilmore, 1984).

> ...a summary perception of the organization's work environment that is descriptive rather than evaluative (Joyce & Slocum, 1984; Schneider & Reichers, 1983).
>
> ...a characteristic of organizations which is reflected in the descriptions employees make of the policies, practices, and conditions which exist in the work environment (as opposed to affective responses to these phenomena) (Schnake, 1983).
>
> ...a perceptual phenomenon occurring within the individual which becomes organizational climate when those perceptions are shared (Field & Abelson, 1982).
>
> ...a broad class of organizational and perceptual variables that reflect individual-organizational interactions and affect individuals' behaviors (Glick, 1985).
>
> ...a visible manifestation of culture which is a step closer to objective reality than culture; climate is perception based rather than assumption based (Ashforth, 1985).

What these definitions have in common is a grounding in individual perceptions of the organizational context (rather than values or assumptions) and descriptions of events and attributes (rather than evaluations). Agreement among individuals' perceptions must exist in order for there to be organizational climate. Thus, consensus or congruence are prerequisites for climate in addition to being useful dimensions of the construct as they are for culture. One could describe a heterogeneous or nonconsensual culture in an organization, but an organizational climate would not exist unless agreement among perceptions was present.

This view of climate has helped to provide value-added to previous organizational and individual level research in at least four ways. First, the emphasis on individual perceptions provides an alternative and a supplement to the motivational approach that characterizes much of the current empirical research. That is, variation in individual behavior is generally explained by content (e.g., need) and process (e.g., expectancies) theories of motivation. But the climate construct emphasizes the key role of individual perceptions in helping to operationally define those theories. How needs and expectancies are interpreted, for example, may be a product of climate perceptions (Campbell & Pritchard, 1976).

Second, a distinction has been made between psychological climates and organizational climates (James & Jones, 1974). Briefly, psychological climates are the meanings an individual attaches to a work context; organizational climates are summated, averaged meanings that people attach to a particular feature of a setting. This distinction permits the climate construct to be applied to multiple levels of analysis without having its definition altered. Whereas motivational approaches are mainly restricted to the individual level of analysis, climate research can focus on multiple levels (Schneider & Bartlett, 1968; Schneider & Dachler, 1978; Schneider, Parkington, & Buxton, 1980).

The third contribution comes from the idea that people attach meaning to psychologically related clusters of events. This implies that work settings have numerous climates and that these climates are for something. An organization may have, for example, a climate for service (Schneider, Parkington, & Buxton, 1980), a climate for safety (Zohar, 1980), or a climate for achievement (Litwin & Stringer, 1968). To refer to a climate per se, without attaching a referent to it, is meaningless. Climate is not an "it," but a set of "its" each with its own particular referent. Therefore, predicting individual or organizational behaviors requires that specific types of climates be assessed, not just some global, model climate perception. This development in the climate literature leads to much more precision of measurement and more variance accounted for in relationships.

Fourth, measures of climate have been differentiated from measures of satisfaction. Guion (1973) and Johanneson (1973) found that climate was not demonstrably different from job satisfaction when climate perceptions included both evaluations and descriptions. However, other researchers have shown that when climate perceptions are conceptualized descriptively, not evaluatively, climate and job satisfaction are divergent concepts (Joyce & Slocum, 1979; Lafollette & Sims, 1975; Newman, 1977; Schneider & Snyder, 1975). Moreover, Schneider and Snyder demonstrated that respondents could separate descriptions of their work settings from their evaluations of them. By restricting climate to

descriptions, not evaluations, additional variance to that explained by satisfaction is accounted for.

Probably the biggest remaining difficulties with the organizational climate construct relate to the issues of aggregation and uniqueness. With regard to aggregation, whereas organizational climate is defined simply as the summated consensual perceptions of individuals (i.e., aggregated psychological climates), it is a somewhat more complex issue. How much agreement is enough? What about different patterns of agreement? Joyce & Slocum (1984) found that not only did individuals differ in terms of their agreement about certain climate factors, but the patterns or structure of those agreements varied as well. For example, suppose respondents are asked to rate the climate for participation in an organization. One individual might agree strongly that one attribute of participation is present, but agree less strongly that another is present. A second individual might have a different pattern of responses. Because of this continued ambiguity, much of the literature on climate continues to focus on issues of definition and circumscription rather than prediction of other variables.

The second issue, relating to uniqueness, is that many items used to assess climate empirically are still not different from items used to measure leadership style, structure, managerial communication, etc. Moreover, concepts once thought to be independent of climate are now appearing in climate dimensions: for example, conflict and ambiguity (Jones & James, 1979); equity (James, 1982), centrality (Joyce & Slocum, 1979); and reward orientation (Schneider, 1975). Using a well-known climate instrument, for example, (i.e., that developed by Campbell & Pritchard, 1969) Joyce and Slocum (1984) found ten embedded climate scales: autonomy, social relations, level of rewards, performance-reward dependency, motivation to produce, status polarization, flexibility-innovation, supportiveness, decision decentralization, and structure. Most of these dimensions are part of motivation theories or models of organizational design. This simply illustrates that the domain of climate has still not been precisely defined.

Because no overall climate measure is possible for organizations, and because the domain of climate is still so ambiguous, the dimensions used to assess climate have varied widely as well. Most have simply emerged from factor analyzing questionnaires used to assess the climate of a specific organization for a specific purpose (for example, Schneider, Parkington, & Buxton's [1980] dimensions of climate for service in insurance agencies are completely different from Campbell & Pritchard's [1969] and Joyce & Slocum's [1984] six scales for performance climate in manufacturing plants). Therefore, it makes little sense to try to identify content dimensions of organizational climate in a generic sense since they may differ with every study.

On the other hand, the dimensions identified earlier in the discussion of culture are equally applicable to climate in bounding the construct or circumscribing its measurement. Those dimensions are different in nature from the dimensions that emerge from factor analysis and that relate to content. Their intent is to bound the construct and to identify an organizing framework rather than to prescribe specific content. Therefore, the following dimensions seem apropos for guiding research on organizational climate as well as culture:

1. Strength (the extent to which individuals agree strongly that certain descriptive elements are present in the job context).

2. Congruence (a prerequisite to the presence of organizational climate indicated by agreement among individual perceptions).

3. Type (a climate must be *for* something--such as satisfaction or commitment--and type refers to what the *for* is).

4. Continuity (the extent to which climate remains stable over time).

5. Distinctiveness (the extent of uniqueness from other organizations in the climate).

6. Clarity (the extent to which the climate is understood or unambiguous to individuals).

Being sensitive to these dimensions in climate research should enhance the specificity and precision of the climate construct.

Empirical Research Using the Climate Construct

Much of the recent literature on climate reports assessments of climate as a dependent variable or discusses its conceptual underpinnings and issues. The basic issue in most of these articles is, "How is climate different from (or similar to) other commonly measured variables?" Some examples of that research is summarized first, followed by literature that investigates the association between climate and outcome variables. As was the case with culture, very little of this literature was conducted in the higher education context, so the extent to which generalizations are possible are unknown. On the other hand, the intent of this review is simply to uncover possibilities and suggestions for potential fruitful research avenues, not to identify definitive relationships.

Climate as a dependent variable. Organizational climate was distinguished empirically from the concept of organizational structure by Campbell et al. (1970); Lawler, Hall, and Oldham (1974); Payne and Mansfield (1973); and Payne and Pugh (1976).

Psychological climate was distinguished empirically from the concept of satisfaction by Lafollette and Sims (1975); Payne, Fineman, and Wall (1976); Powell and Butterfield (1978); and Schneider and Snyder (1975).

Campbell et al. (1970) compared a variety of climate instruments and concluded that six common dimensions characterized all of them: autonomy, structure, reward, consideration, warmth, and support. However, unique content dimensions of climate were assessed by a variety of other authors and claimed to be generic: for example, leaders' psychological distance (Payne & Mansfield, 1973), managerial functioning (Schneider et al., 1980), leader facilitation and support (Jones & James, 1979), managerial trust and consideration (Gavin & Howe, 1975), open-mindedness (Payne & Mansfield, 1973), boss and subordinate information (Bass, Valenzi, Farrow, & Solomon, 1975), communication flow (Drexler, 1977), competence/potence and risk orientation (Lawler et al., 1974), courtesy and overall quality (Schneider et al., 1980), achievement, power, and affiliation orientations (Litwin & Stringer, 1968), and others. This simply highlights the futility of trying to identify common climate dimensions relating to content.

Perceptions of climate vary among individuals in different levels of the organizational hierarchy (Hall & Lawler, 1969; Schneider & Bartlett, 1970; Schneider & Hall, 1972). Perceived degree of structure or bureaucratization influences employees' perceptions of climate. For example, George and Bishop (1971) found that highly bureaucratic educational systems were perceived as having "closed" climates.

A significant effect of the external environment on climate was found by Dieterly & Schneider (1974). A customer orientation, for example, produced more perceived autonomy and reward orientation in organizational climate than a stockholder orientation.

A climate perceived to be high in consideration was also perceived to be high on all five bases of power (reward, referent, coercive, legitimate, and expert) (Dieterly & Schneider, 1974).

High amounts of discretion and enrichment in work result in perceptions of climate that include high responsibility and achievement motivation, closeness to management, and closer ties between rewards and performance (Sorcher & Danzig, 1969; Davis, 1968).

Golembiewski and his associates (1970a, 1970b; 1971; 1973a, 1973b) found that sensitivity-type training enhanced the match between individuals' ideal and perceived climate and that these results are enduring and obtain even in the face of personnel cutbacks.

A climate perceived as good in a static-simple environment is perceived as a bad climate in a dynamic and complex environment (Costley, Downey, & Blumberg, 1973; Hand, Richards, & Slocum, 1973; Watson, 1973).

Climate as an independent variable. Litwin and Stringer (1968) systematically varied the climate of three simulated organizations by exposing each to a different leadership style of the president. The result was that individuals produced the most in an "achieving climate," but they were most satisfied in the "democratic-friendly climate." In another study these authors found the following outcomes associated with their three main types of climates: (1) *autocratic climate:* higher levels of power motivation, low satisfaction, negative attitudes toward the group, and low innovation and productivity; (2) *friendly climate:* high level of affiliation motivation, high job satisfaction, positive attitudes toward the group, and moderate innovation coupled with low performance; and (3) *achieving climate:* high levels of achievement motivation, high job satisfaction, positive group attitudes, and high innovation and productivity.

High job satisfaction among managers was associated with a highly supportive climate, regardless of the personality type of the manager. However, managers with a high need for order were more satisfied in a highly structured climate, and those with a high need for autonomy were more satisfied with a climate of high discretion and low centralization (Pritchard & Karasick, 1973).

Managers who perceived their climate to be achievement oriented were more satisfied with their jobs than those who perceived the climate to be power or affiliation oriented. Individuals in an achievement climate also rated themselves as being higher performers than when they were in a power or affiliation climate.

Frederickson (1966) found that (1) innovative climates led to greater productivity; (2) innovative climates led to more predictable task performance; (3) a consistent climate led to more consistent task performance than an inconsistent climate; and (4) climates that promoted freedom were associated with more personal and direct management-employee interaction, while formal climates were associated with formalized interactions between managers and subordinates.

Workers who rated their climate as supportive also tended to rate their superior more favorably and as more effective than subordinates who perceived the climate as less supportive. Outside trainers also rated as more competent subordinates who perceived the environment to be supportive (Friedlander & Greenberg, 1971).

In a study of production workers, Friedlander and Margulis (1969) concluded that climate is a significant determinant of individual job satisfaction, but the relationship varied with the type of climate and the measure of job satisfaction.

George and Bishop (1971) found that in schools rated as having a less bureaucratic, innovative climate, teachers exhibited lower anxiety and perceived lower structure than those in a highly bureaucratic climate. Teachers also were more dependent and trusting, and they perceived the climate as more open.

Similarly, Hand, Richards, and Slocum (1973) found that managers who perceived the climate to be more consultative had greater increases in their performance as a result of training than those who perceived the climate to be autocratic.

An employee-centered climate yielded higher profits and lower unit costs in more instances than a task-centered climate. Employees also were more cohesive and more satisfied in the former type climate (Kaczka & Kirk, 1968).

Customers who perceived their bank's climate as impersonal and negative switched banks more often than those who perceived the climate as personal (Schneider, 1973).

Batlis (1980) used a variety of instruments to assess eleven climate dimensions among supermarket directors and to predict three dependent variables: job anxiety, propensity to leave, and job satisfaction. "Organizational clarity" was the climate dimension that predicted most powerfully the three dependent variables, and "performance-reward dependence" predicted two of the three (satisfaction and propensity to leave but not anxiety).

Joyce and Slocum (1982, 1984) found that job performance was significantly associated with congruence among employee climate perceptions and that job performance was predicted better by a variety of organizational climate dimensions than by objective job characteristics.

Summary

This section of the paper has discussed two rather important constructs in the organizational literature: organizational culture and climate. Whereas some confusion has appeared in the literature regarding their distinctive natures, it is clear that the two concepts possess very different meanings. Both appear to be powerful predictors of a variety of organizational and individual behaviors, although most of the work on culture has focused on organizational effectiveness as an outcome while the climate literature mostly focuses on individual satisfaction as the outcome. Both constructs need to be accounted for in any assessment of organizational characteristics as related to teaching and learning, although the exact manner in which they should be operationally defined and assessed is not clear from the existing literature.

Defining Culture and Climate in Higher Education: Conceptual Confusion

There are no common definitions in the literature for the terms culture and climate in higher education. In fact, one finds the words "culture," "climate," "environment," and "workplace" used synonymously or interchangeably. Numerous authors have taken various approaches to trying to convey the culture of individual colleges and universities and the climates in them but few authors have attempted to describe the culture and climate of higher education as a whole.

Of the various approaches to describing institutional culture and climate, many are anecdotal accounts of holistic experiences in a particular college or university; others are more serious organizational studies of particular types of colleges or universities which dissect an institution into analyzable units that, investigated individually and taken together, lead to an understanding of culture and climate. Other researchers, through quantitative studies, have developed instruments to objectively measure perceptions of and behaviors in discrete dimensions of the college or university environment, and when these measures are aggregated they yield an assessment of the total college or university climate and environment.

As mentioned earlier, few studies of culture and climate focus on the macro-level– on higher education as a social institution. Some focus on professions or disciplines as institutional subcultures of higher education. A great number of studies of the culture and climate are at a more micro-level. They focus on particular types of colleges and universities, on a particular college or university itself, or on the kind of teaching and learning environment provided for faculty and students within an institution. However, the greatest number of studies focuses within the college or university on student climate– an area not addressed directly by this review.

This section of the review of the literature on culture and climate in higher education has two purposes: (1) to demonstrate that college and university culture and climate are concepts that are indeed different; and (2) to provide a synthesis of the various approaches to the assessment of climate. The terms culture and climate are used consistently with the definitions in the preceding section.

Culture: An Analysis By Levels

The Academy as a Social Institution

In 1971, Hodgkinson and Bloy observed that there was an identity crisis in higher education. It seemed that campuses were changing rapidly, the world of scholarship was being altered, and people no longer seemed to know who they were and how they fit productively into social structures (p. ix). As Shoben (1971) pointed out, it became fashionable to search for models to comprehend more fully the university as an institution. For example, the university was studied as a corporation or as a quasi-governmental department. However, in addition to recognizing the merits of such an approach to understanding colleges and universities, Shoben pointed out:

> . . . there is a peculiarity in the approach through credible models. When we attempt to understand other institutions– the family for instance– we are less likely to conceptualize them by their approximations to models than we are to ask how they may be conceived in and of themselves. At the very least, it is as legitimate to search for the distinctive and differentiating characteristics that define the university as it is to identify its similarities to a business firm, a governmental agency, a training school, or whatever (p. 52).

Even prior to the work cited above, Foote, Mayer and Associates (1968) began their investigation of the culture of the university. They also declined to draw upon analogies with political structures and corporate models in order to understand the unique culture of higher education. In their studies, they assumed the following definition of culture:

> By "campus culture" we mean not only the concrete arrangements and institutions that order the educational and governmental processes of the university, but the intangible values, such as a sense of common fellowship, a commitment to free inquiry and rational discussion, and pride in belonging to an institution that refuses to judge itself and the behavior of its members by any but the most demanding standards. More briefly, by a campus culture we mean that complex of tacit assumptions about what is important that leads the members to ask not what is the letter of the law or the prerogative of status and authority, but what is appropriate to an institution concerned with the cultivation of the mind and spirit (pp. 2-3).

Understanding what makes the culture of colleges and universities distinctive, and not how it may be similar to the culture of other types of organizations, provides the key to understanding colleges and universities as workplaces and as teaching and learning environments.

In a more recent examination of academic culture, Austin and Gamson (1983) synthesized the literature on academe as a workplace to illustrate how academe is distinctive from other enterprises. According to Austin and Gamson, the mythology of academic culture portrays universities and colleges "as places in which administrators, professors, and staff members gain satisfaction from their contributions to the intellectual development of students and to the production of knowledge for society" (p. 14). Furthermore, the culture is linked to the compliance system characterizing the relationship between subordinates and superordinates. According to Etzioni's theory of organizational behavior, compliance is "a relationship consisting of the power employed by superiors to control subordinates and the orientation of the subordinates to this power (Etzioni, cited in Austin and Gamson, p. 14). Etzioni describes three types of compliance structures: normative, utilitarian, and coercive. Colleges and universities are predominantly normative, with strong utilitarian elements, especially on the administrative side. Finally, in colleges and universities, reward systems are based primarily on the belief that a university is involved in good work. Consequently, faculty and administrators "attracted to institutions of higher education will likely include individuals possessing much intellectual curiosity [and who are] willing to trade greater rewards for a relatively free and unregimented work style" (Corson, cited in Austin and Gamson, p. 15).

From the above analysis, the following dimensions of culture begin to emerge:

1. A *mythology* of shared goals uniting those engaged in the enterprise;
2. A *system of governance* that provides a structure for the culture and makes it distinctive; and
3. A *shared belief* in common values in the culture.

Disciplines and Professions as Subcultures

As we are progressing through the literature review dealing with culture in higher education, we will proceed from the macro-level to the micro-level. We began by looking at the culture of academe as a social institution; that is, how academia as a workplace has a culture distinct from the culture of another type of workplace, such as a business organization. However, there are cultures that exist within higher education which can be identified as subcultures that cut across colleges and universities. These subcultures may be determined by gender and academic discipline.

Supporting the notion that cultures and subcultures exist in academia, Jensen (1982) presents a model of lifestyles based on the form of women's acculturation to academic life. Her model is built on the assumptions of patterned behavior and values which she terms "women's culture" and "academic culture." Her study is insightful because it rests on the proposition that there is an institutionalized academic culture which can be described. Her sources are Logan Wilson's *Academic Men* (1942); Charles Anderson and John Murray's (Eds.) *The Professors: Work and Lifestyles Among Academicians* (1971); Theodore Caplow and Reece McGee's *The Academic Marketplace* (1958); the collection of studies from the Carnegie Commission research including Martin Trow's (Ed.) *Teachers and Students* (1975); and Lionel Lewis's *Scaling the Ivory Tower* (1975).

Biglan's (1973a, 1973b) studies indicate that academic disciplines and professions constitute subcultures in academia. Based on an empirical study conducted at the University of Illinois and replicated at a small, denominational liberal arts college in Washington, Biglan found that scholars identify three features that distinguish between academic subject areas: (1) the existence of a single paradigm; (2) their concern with practical application; and (3) their concern with life systems. Based on this study, Biglan devised a classification system for academic subject areas that has eight categories of three dimensions: hard vs. soft, pure vs. applied, and life vs. nonlife. The results of Biglan's studies are valuable because they warn against dangers of overgeneralizing from studies based on one academic unit, and they emphasize a research approach that requires one to examine departments individually and not in the aggregate.

Conducting a study of faculty undergraduate teaching goals across distinctively different types of institutions, Smart (1982) demonstrated the usefulness of Holland's theory of vocational choice/personality in differentiating between faculty subgroups. Holland's theory assumes that vocational choice is an expression of personality and that most people can be classified as one of six primary personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. His theory further proposes six analogous model environments reflecting the prevailing physical and social settings in society (Smart, 1982, p. 180). The usefulness of Holland's theory has also been demonstrated in other research in higher education (for example, Astin, 1965; Peters, 1974; and Smart & McLaughlin, 1974). Generally, these studies indicate that certain personalities are drawn to certain academic disciplines, and that these personalities shape the teaching and learning environments of the disciplines in distinctive ways.

Organizational Culture and Institutional Type

In the early 1970s the higher education literature was deluged with studies of organizational change in existing institutional structures and of new and emerging institutional patterns. Due to the rapid expansion of the system of higher education during the post-war years, student activism and unrest in the 1960s, and the new massive student clientele entering postsecondary education as a result of the open access policy, the once traditional and stolid institution of higher education was forced to respond with some modification in its structure and delivery system. With each new modification and each new pattern, a new college or university culture was formed. Those modifications and new patterns illuminate the conceptual dimensions of college and university culture.

In *New Colleges for New Students*, Hall and Associates (1974) describe what was considered a revolutionary approach to designing colleges: The colleges were designed around the needs of the students. For example, La Guardia Community College and Alice Lloyd College were designed for blue-collar and rural youth; New York Institute of Technology, Chicago TV College, Rural Family Development Project, and Advance Schools, Inc. were all designed to meet the needs of the new adult learner; and Malcolm-King Harlem College Extension, Nairobi College, DQU, Navajo Community College, Pima College, and Third College were designed to meet the exclusive needs of various minority students. The importance of the development of these colleges is echoed in Hall's words: "For years we have been trying to make students fit colleges, rather than the reverse. When they have not fit, failure has been placed at the feet of the student, not the colleges" (p. 194). What these colleges show us is that distinctive cultures can evolve from targeted constituencies. A distinctive college culture is identified with the homogeneous characteristics of its student body.

Gaff and Associates (1970) describe the cluster college. As they point out, the idea of a cluster college was not new; what was new was the fact that "American educators have rediscovered the collegiate model of university organization and are increasingly using it in an attempt to improve undergraduate education" (p. 4). The cluster colleges demonstrate that unique cultures evolve from the organizational structure of a college or university. The cluster college was an "organizational device . . . used to capture the special values of both the small college and the large university without their inherent limitations" (p. 4). The cluster college examined the traditional academic customs, and frequently rejected the conventional curricula, grading practices, instructional techniques, and student-faculty relationships. The cluster colleges, breaking from the binding traditions and constrictive

bureaucratic structures of old established institutions, were forging new academic traditions based on a new set of shared assumptions about the educational process.

In *The New Colleges: Toward an Appraisal* (Dressel, 1971), various cluster colleges and residential colleges are evaluated. From these evaluations, one learns that distinctive college cultures also evolve from unique curricular programs. For example, several cluster colleges have been developed around distinctive curricular motifs, such as Johnston College's focus on international problems and Callison College's focus on nonwestern studies. From empirical studies conducted at residential colleges at the University of Michigan and at Michigan State University, the distinctive culture surrounding residential colleges becomes apparent. As defined by Garfinkel, "By a residential college we mean that teaching and curriculum, scholarly and cultural values are critical elements of the college where students live and study" (1971, p. 242). At the University of Michigan, students entering the residential college expected to find congeniality, clarity of expectation and fairness; they saw the larger university as impersonal, competitive, and offering a confusing educational experience (Newcomb, Brown, Kulik, Reimer, & Revelle, 1971, p. 111). Students enrolling in James Madison College at Michigan State University generally perceived the environment to be intellectually stimulating and gratifying (Garfinkel, 1971, p. 247).

However, another important aspect of college and university culture is revealed in the Newcomb et al. study of students enrolling in the University of Michigan residential college. In reviewing the study, Litten (1971) observed that it supports Chickering and McCormick's (1970) hypothesis that given colleges most effectively serve particular types of students; "persons outside of a given college's range, particularly those who are above it, may find more reward in moving on to another environment" (Litten, p. 266). We see then that congruence between the students and the college or university is an important aspect of the college or university culture.

There are numerous other studies investigating other types of colleges and universities that reinforce the concepts portrayed above. For example, see Riesman, Gusfield, and Gamson (1970) for a discussion of two public, non-resident colleges (Oakland and Monteith); Lee and Bowen (1971) for a discussion of the multicampus university; Klotsche (1966) for a discussion of the urban university; Altman (1970) and Cardozier (1984) for a discussion of the upper-division college; Howell and Eidson (1985), Henderson and Hall (1946), and Birkhead (1984) for a discussion of the ideal liberal arts college, Antioch College, and various aspects of the liberal arts college's institutional culture; and Clark (1960) for a discussion of the junior college. All of these studies illustrate that distinctive college and university cultures derive from the student body, the governance structure, and the curriculum, and that the participants in those cultures share assumptions, values and beliefs about teaching and learning and the mission of a college or university.

Evidence of College and University Organizational Culture

Throughout this review, the idea that a college or university culture is "distinctive" has been repeated. This concept is drawn from the classic study in higher education organizational analysis, *The Distinctive College: Antioch, Reed and Swarthmore* by Burton Clark (1970). Although the three colleges are highly selective private liberal arts colleges, they each have unique cultures that render them distinctive. Each college has an organizational saga through which the educational values have been and will continue to be transmitted. The students they attract, the faculty they engage, the governance structures they adopt, the standards they demand, and the missions they profess, are all expressed differently in each institution; but the way they are each defined and combined in Antioch, Reed and Swarthmore results in a viable college that is positioned among the top-ranked, prestigious colleges in the nation.

Three authors among many, Meister (1982), Martines (1985), and Weiss (1986), illustrate what might be considered various aspects of academic culture in their contrasting analyses of Amherst and Hampshire College, Reed College and UCLA, and St. John's (Annapolis) and Brown University respectively. As Meister describes,

> Seen from the hill at Amherst, Hampshire's curriculum is trendy, its standards lax, its faculty composed largely of ideologues and misfits; its students take their education casually and are given credit for almost anything; it is a remnant of California culture, awkwardly grafted onto the more civil New England scenery.
>
> From the frisbee fields of Hampshire, Amherst looms as a bastion of cultural elitism and authoritarian pedagogy; its curriculum avoids engagement with social issues; its standards are rigid, its faculty is composed largely of ivory tower, Platonic academics; its students are the children of privilege, little doctors, lawyers, or professors-to-be, and are given credit for nothing except what transpires in the classroom (pp. 27-28).

Martines describes Reed College as pastoral and vibrant, small, intense, and conducive to excited, late-night arguments; it is a blend of intellectual fervor and frustration; classes are small; the professors are militantly committed to teaching, proudhearted in devotion to ideas, and delight in individual care. On the other hand, UCLA is an impersonal, large, cosmopolitan, research-oriented university where the students see the university as a gateway to employment, but unlike Reed it is also a place where faculty can renew themselves. Weiss describes his visits to St. John's and Brown University as a tour of two extremes: The curricula at the two schools are at opposite ends of the debate of whether to get back to basics; and with regard to student regulations, "One school sublimates kids to death, the other hands over the keys and walks away" (p. 21).

Although all three authors are describing institutions of higher education, one can easily see how distinct each one is from the other. Nevertheless, the college descriptions all touch on the following characteristics that make up the college and university culture: (1) institutional characteristics, such as size and location; (2) curricular structure and academic standards; (3) student-faculty relations; (4) the physical environment; (5) student characteristics, activities, and discipline; (6) faculty characteristics; and (7) the goals of instruction. Taken individually each characteristic does not describe the college's culture. It is how each characteristic is shaped plus the combination of all the characteristics together that constitute the culture of a college or university. To reinforce the importance of this formula, we need only to remember the words of Burton Clark in the aftermath of the campus disturbances in the 1960s, "If we did not know it before, we know it now– good scholars and good students can make a bad educational system. *Everything depends on how they are put together*" (1968, p. 4).

Applying Organizational Views of Culture and Climate to Higher Education

Although some authors in the late 1960s and early 1970s objected to the application of concepts outside the field of higher education to higher education, many authors today apply concepts from the organizational literature to higher education settings. Particularly relevant to our literature review is the application of organizational culture and organizational climate concepts to the higher education setting by those engaged in higher education. Soudek (1983) describes organizational climate and the professional behavior of academic librarians. Maliconico (1984) discusses organizational culture in the academic library setting. Dill (1982) also draws on organizational literature when he discusses the management of academic culture.

Creating and Changing Culture

The foregoing discussion gives us an indication of how cultures are created and how existing cultures are changed. Five strategies quickly become apparent.

First, cultures are created and even changed by strong leadership. As illustrated in Clark's analysis of Antioch, Reed, and Swarthmore, the distinctive cultures the colleges enjoy today were created under the leadership of strong visionary presidents.

Second, cultures are most easily created in new institutional settings. This is best illustrated by the founding of the new upper division colleges and the cluster and residential colleges in the late 1960s and early 1970s.

Third, cataclysmic events may provide the opportunity for colleges and universities to change their culture. Student unrest, demonstrations, and riots in the 1960s were, on many campuses, cataclysmic events that changed the course and culture of many institutions.

Fourth, the resolution between conflicting subcultures on a campus may lead to the emergence of a new culture. Oakland University in Michigan provides such an example. When it was originally founded, Oakland University was to be a highly-selective liberal arts college. It originally attracted students and faculty who shared the mission and spirit of a liberal arts college. However, situated in the metropolitan Detroit area, Oakland University also began to attract an urban student population that quickly grew. The institution changed course and moved away from its original liberal arts college culture toward the culture of an urban university.

And finally, reorganization provides an opportunity to the institution to change its existing culture. Northeast Missouri State, formerly a teachers' college, has now been reorganized into a comprehensive multipurpose university; the result is a changed culture. In periods of declining resources, declining enrollments, and intensified competition, single-sex institutions have become coeducational; religious institutions have become secularized; highly-selective institutions have become less selective. The result has been a redefined institutional culture.

The Impact of Culture

When we consider culture as an independent variable affecting the teaching and learning environment, we realize that its influence is diverse.

First, culture plays an important role in attraction and selection; that is, the types of faculty and the types of students who predominate in a college or university are sometimes self-selected based on the culture that first attracted them to the institution or the actual admission/selection process. For example, certain types of faculty have been recruited by Reed, Swarthmore, and Antioch. The Residential College at the University of Michigan attracts its own type of students and confirms this principle: Certain students are attracted to certain college cultures.

Second, culture facilitates socialization. This is especially evident in those students in professional schools. In a business school, for example, a certain culture predominates: One tends to find business students dressing similarly; the men in coats and ties and the women in suits. Law schools and medical schools provide even better examples of the socialization process. Of course, it is always hazardous to make generalizations, but the fact that generalizations can be made lends support to the proposition that the process of socialization is facilitated through a well-defined culture.

Finally, culture has a considerable direct impact on student outcomes. One only has to examine the studies by Newcomb and many others that investigate the impact of different types of colleges on various learning outcomes.

Climate of Colleges and Universities

Although the literature in higher education does not distinguish between the two, the following discussion is based on the premise that there is a difference between the climate of a college or university and the environment of the college or university. The difference is reflected in how the effects of each are measured. Climate is presumed to have an effect on one's attitude or "sense of well-being." For example, climates may induce one to feel satisfaction, dissatisfaction, high morale, low morale, anxiety, stress, or motivation. The environment is presumed to have an effect on one's behavior. For example, the library facilities and hours of operation may result in greater or diminished use by students and faculty. In other words, when discussing the climate of a college or university, one describes what one feels; when discussing the environment of a college or university, one describes tangible structures and verifiable behaviors.

Definitions of the College Environment as Climate

There are a number of definitions for the college environment in the higher education literature. The following are a few that define the environment in broad terms; the environment will be more discretely defined as we discuss the dimensions of the instruments designed to assess it.

"The task of defining the college environment," according to Astin, "is one of identifying and measuring those institutional characteristics that are likely to have some impact on the student's development" (1968, p. 2). In the broadest sense, the college environment can be defined as "including any characteristic of the college that constitutes a potential stimulus for the student, i.e., that is capable of changing the student's sensory input" (p. 3). Broadly speaking, the term includes variables such as administrative policies and practices, curriculum, faculty, physical plant and facilities, teaching practices, peer associations, and other attributes of the college experience that might affect the student's development (Astin, 1971, p. 288). Most importantly, these environmental variables can be changed or manipulated by means of educational decisions (p. 288).

Approaches to Assessing the College Climate

There are a number of approaches to assessing a college's or a university's climate. An excellent summary of approaches prior to 1968 is provided by Astin (1968); Evans (1983) summarizes the approaches from the 1950s through the 1970s. Briefly, the approaches to environment assessment fall into four categories: the "image" approach (Pace and Stern, 1958; Stern, 1964); the "student characteristics" approach (Astin & Holland, 1961); the "stimulus" approach (Astin, 1968); and the ecosystem model (Banning, 1978, 1980; Moos, 1979; WICHE, 1973). Generally, all of these approaches are based on a theory that the degree to which the students' characteristics and needs are congruent with various aspects of the environment influences their satisfaction, happiness, and achievement (Evans, 1983). This theory stems from the pioneering work of Lewin (1936) in which he developed the formula, $B=f(P \times E)$; that is, behavior is a function of the interaction between a person and the environment.

The image approach is developed from Murray's (1938) need-press theory and from the work of Stern, Stein and Bloom (1956) on personality assessment. It is based on the notion that the college environment or "press" can be characterized in terms of its potential for reinforcing certain personality needs. For example, the college's "press for achievement" indicates the college's capacity for satisfying the student's "need for achievement." The instrument developed from this approach was the College Characteristics Index (CCI) (Pace & Stern, 1958). The CCI was later shortened and simplified by means of a factor analysis and item analysis and resulted in the development of the College and University Environment Scales (CUES) (Pace, 1960, 1963, 1969).

The student characteristics approach, developed from Holland's (1959a, 1959b) theory of personality types, is based on the assumption that environments are transmitted by people and that the college environment depends on the personal characteristics of the students, faculty, administration and staff of the institution. It is further assumed that a major portion of the student's environment is determined by the characteristics of one's fellow students. The instrument developed from this approach is the Environmental Assessment Technique (Astin & Holland, 1961).

The stimulus approach is based on the conviction that the preceding two approaches fail to identify characteristics of the environment that provide a stimulus to induce change in student development. For example, although the student's perception of his college environment may influence his behavior toward his fellow students, his perception alone cannot function as a stimulus for others. Moreover, his intelligence, attitudes, values, and other personal characteristics do not constitute stimuli, although these traits may be manifested in certain behaviors which can in turn serve as stimuli for fellow students. The instrument developed to measure the stimuli was the Inventory of College Activities (ICA) (Astin, 1968).

In the early 1970s, the campus ecology approach became popular. It has most recently been described by Evans (1983) and Winkler (1985). This approach focuses on the interdependent relationships between all parts of the campus environment, including the physical structures, the organization, and the people; a major concern of this model is the effect of the environment on the well-being of the students. Campus ecology not only examines the physical environment of the campus, but it also examines the learning environment—the way different students respond to different teaching techniques, accessibility of faculty members and administrators to students, and the clubs and organizations. As Sullivan describes it, campus ecology is based on the assumption that "what a person does as a thinker is profoundly influenced by what happens in an emotional and social setting" (Sullivan, cited in Winkler, p. 11). This approach has been applied to various unit levels within the academic institution. For example, Salomone and Daughton (1984) discuss the benefits of applying the ecological approach to career counseling. Conyne (1983) proposes an environmental design for counseling centers which advocates changing the environment to meet the needs of the students rather than changing the students to fit the environment.

Supporting the distinction between climate and environment, a notion in environmental design is the definition of an ecological climate. The ecological climate is a summative perception, similar to the general personality of an individual, that the institution has acquired over time, derived from its physical, academic, social, cultural, organizational, and administrative conditions (i.e., such phrases as "preppy school," "party school," "cow college," "tech school," a "warm intellectual atmosphere," or a "challenging liberal arts environment") (Conyne, 1983, p. 435).

Instruments for Measuring the Academic Climate

There are a number of instruments available for measuring the academic climate and environment. As indicated earlier, the first were the College Characteristics Index (CCI) now the College and University Environment Scale (CUES), the Environmental Assessment Technique, and the Inventory of College Activities. Other instruments that have been developed subsequently and are used as measures of the academic environment are the Institutional Goals Inventory (IGI) (ETS, 1973), the Institutional Functioning Inventory (IFI) (ETS, 1970), and Student Reactions to College (SRC) (ETS, 1974). [Note: An instrument developed locally in the College of Agriculture and Natural Resources at Michigan State University was the Monitor of Student Satisfaction (MOSS) (Cooper & Bradshaw, 1984).] Table 1 provides an illustration of the various instruments to measure an institution's climate.

Student Perceptions of the Academic Climate: Some Findings

To learn about student perceptions of the academic environment and the influence of the environment on the students, numerous studies have been undertaken. Some have used the instruments described above, while others have developed other methodologies and instruments. The following are the results of some recent studies conducted on various types of student bodies, e.g., minority students, freshmen vs. seniors, domestic vs. international students, traditional vs. non-traditional students, and urban students.

Burrell (1980) investigated the factors influencing the success of minority students within predominantly white schools. He found that major academic, social, and environmental barriers face minority students on predominantly white campuses. Moore (1985) describes the application of an environmental intervention model to historically black colleges. This model requires shaping the environment to meet the needs of the students. Nettles, Thoeny, and Gosman (1986) completed comparative and predictive analyses of black and white students' college achievement and experiences and discovered important findings regarding the student-environment fit as measured by students' feelings that the university is nondiscriminatory, academic integration, students' satisfaction, peer group relations, and interfering problems.

Using CUES II, Goodwin (1980) measured the differential perceptions of freshmen and seniors of the university environment and found the two groups differing significantly on two scales: scholarship and propriety. Freshmen perceived the campus high in intellectual

TABLE 1

Instruments for Measuring the Academic Climate

INSTRUMENT	CONCEPTUAL APPROACH	NATURE OF ITEMS	NATURE OF RESPONSES	DATA SOURCE
College & University Environment Scales (CUES)	"Image" of environment	Statements about college life	True/False [Perception]	Students
Inventory of College Activities (ICA)	Environment as "stimulus"	Statements about college activities	Yes/No; Number of hours; Frequency; And others [Behavior; Perception]	Students
Institutional Goals Inventory (IGI)	Congruence	Goal statements	Is/Should be; Importance [Perception]	Students; Faculty; Administrators; Others
Institutional Functioning Inventory (IFI)	Image	Statements about college activities	Yes/No; Agree/ Disagree [Perception]	Faculty; Administrators; Students (1/2)
Student Reactions to College (SRC)	Need fulfillment	Statements about college activities	Frequency; Yes/No [Behavior; Opinion; Perception]	Students
College Student Experiences (Pace, 1983)	Quality of effort	Statements about college	Frequency [Behavior; Perception; Opinion]	Students
College Outcome Measures Program (COMP) (ACT, 1985)	Not a measure of climate; a measure of general education program			Students Alumni

and scholarly pursuit; seniors viewed the campus environment low in speculation, interest in ideas and knowledge, and intellectual discipline. Freshmen viewed the climate as high in propriety; seniors perceived the campus as less mannerly.

Hamilton (1979) compared domestic and international students' perceptions of the university environment using the College Characteristics Index and found international students scoring significantly higher than the domestic students on the following scales: aspiration, academic achievement, self-expression, group life, and vocational climate.

Kuh and Sturgis (1980) compared the adult learners and traditional age students' perceptions of the university using the CUES and a self-designed questionnaire and found that although many of the various dimensions of the campus environment were viewed similarly, certain features such as the social-emotional climate were viewed differently.

Using an ethnographic approach, Weis (1985) described faculty perspectives and practice in an urban community college and cited the importance in understanding the genesis of faculty and student cultures and the way in which each creates aspects of the other. Weis suggests that faculty and student cultures take shape and polarize in such a way as to help produce widespread educational failure.

Although these studies provide useful indicators of primarily student perceptions of their academic environment, they reveal little about how the environment affects their attitudes and behaviors. Moreover, these studies do not indicate which discrete aspects of the environment affect their attitudes and behaviors as students in the classroom. The next section will review research that attempts to identify how the environment and what aspects of the environment affect student development.

Dimensions of Climate and Student Outcomes

There has been a great deal of research exploring the relationship between the academic environment and selected student outcomes; some of that research will be summarized briefly below. Outcomes investigated include student academic achievement, educational aspirations, attitudes toward college, intellectual and personal development, persistence and withdrawal, job status, and stability. Although some of the studies reported below include no aspect of the academic environment, most include selected aspects of the academic environment as a predictor of various outcomes. A good summary of the literature on the effect of the academic environment on outcomes is provided by Winteler (1981). Mathiasen (1984) reviewed over 60 studies that investigated the predictors of college academic achievement that did not include the college environment or any aspect of it. Pascarella (1985) most recently reviewed the research on college environmental influences on learning and cognitive development.

Student-Faculty Contact and College Outcomes

Pascarella (1980) investigated the relationship between student-faculty informal, non-class contact and various college outcomes. Holding student pre-enrollment traits constant, Pascarella found significant positive associations between the extent and quality of student-faculty informal contact and students' educational aspirations, their attitudes toward college, their academic achievement, their intellectual and personal development, and their institutional persistence. Bean and Kuh (1984b) assessed the degree of reciprocity between faculty contact and academic performance. They developed a nonrecursive theoretical model for socialization with the following exogenous variables: academic integration, academic difficulty, intent to transfer, memberships in campus organizations, contact with one's advisor, talking in class, and academic performance in high school. The endogenous variables were faculty contact (defined operationally as the total number of informal visits with the faculty members for 10 minutes or more) and grade point average. Their hypothesis that faculty contact has a powerful effect on grade point average was not supported by this study.

Another study on student-faculty relations was recently completed by Volkwein, King and Terenzini (1986). However, they investigated the relations that develop between faculty and transfer students. They examined the effects of the frequency of the transfer student's informal contact with faculty outside the classroom (lasting ten minutes or more) and the quality of that informal contact on two measures of intellectual growth: intellectual skill development and academic content acquisition. The investigators controlled for student characteristics, prior education, student goals, and campus variables. The investigators found that student perceptions about the quality and strength of their relationships with the faculty are significantly associated with intellectual growth.

Living Arrangements and Student Outcomes

Pascarella and Terenzini (1981) investigated freshman year educational outcomes associated with organizational/structural differences in residence arrangement. Research findings had indicated that organizational variations in residence arrangements were systematically associated with differences in educational outcomes, such as academic

achievement, personality dimensions, perceptions of environmental press, value change, and institutional persistence/withdrawal decisions. Pascarella and Terenzini's study was a verification of the social-psychological relationships that develop between students and faculty in experimental living arrangements. The results of their study indicate that an experimental living-learning residence did promote significantly more informal contact with faculty, and it had a significant positive influence on cumulative academic achievement, voluntary freshman to sophomore persistence, and attitudes toward the freshman year academic program. However, contrary to Pascarella and Terenzini's positive findings, Kegan (1981) finds that living-learning programs are fated to fall short of full success. He summarizes the studies at Harvard and Hampshire Colleges to show the failure of traditional house systems or residence hall programming to bridge the gap between academic and living subcultures. He concludes that bringing the academic environment into the living environment does not work. Finally, though, Blimling and Hample (1979) found that by structuring the study environment in residence halls the grade performance of undergraduate students at all levels of academic performance could be increased. With regard to other outcomes, Whiteley (1980) investigated the impact on the living environment and extracurricular experiences on the moral development of students. He found that the living environment in particular was influential in changing students' reasoning about moral issues.

Factors in Attrition and Retention

Munro (1981) developed a path analysis model to test Tinto's (1975) model of college dropout. Tinto's model views the academic and social integration of the student into the institution and the student's interaction with these systems as the primary determinants of persistence. Munro's model supports the findings of recent research that the effects of socioeconomic status, ethnicity, and sex on persistence in higher education are mainly indirect. Moreover, academic integration had a strong effect on persistence, whereas social integration had no significant effect.

Pascarella, Duby, and Iverson (1983) also tested Tinto's model of college withdrawal, however, in a non-residential setting. They also found that persistence depends in large part on academic integration; however, they found that pre-college variables have a greater influence on persistence in a non-residential setting than in a residential setting.

Pascarella, Smart, and Ethington (1986) investigated the factors that influence the persistence/withdrawal of students who begin their academic careers in two-year colleges. Their study was based on Tinto's model, but it lengthened the period of time during which the students were followed. In previous studies, students were followed for only one or two years; in this study, the students were followed for nine years. The findings of this study support those in other studies testing Tinto's model; that is, academic integration and social integration were found to be the key predictors of student persistence.

Edwards and Waters (1982, 1983) investigated academic course involvement, academic ability, academic performance, and satisfaction with both courses and college in general as predictors of undifferentiated attrition at a state supported university; in 1983, they performed a replication study and extended it by incorporating a personal needs/college climate discrepancy index and a voluntary/nonvoluntary attrition breakdown. Among their findings, they found that the personal needs/college climate discrepancy index was marginally significant as a predictor of voluntary attrition.

Climate and Educational Aspirations

Pascarella (1984) identified the effect of the college environment on students' educational aspirations. His causal model included the following exogenous variables: academic aptitude; parental education; and institutional environment operationally defined by three scales (academic or intellectual competition; impersonalism and inaccessible faculty; and conventional or conformist press). Aside from precollege educational aspirations, the only other variables to have significant direct effects on output educational aspirations were measures of the college environment and a cumulative measure of college achievement. The

most interesting findings of the study were those suggesting differences in the patterns of environmental influences on the educational aspiration levels by gender and by degree of academic selectivity of the institution attended.

Other Outcomes of Collegiate Education

Smart and Ethington (1985) explored differences in the job status, stability, and satisfaction of recent four-year college graduates with varying lengths of attendance at two-year institutions. Their covariates were academic ability, family socioeconomic status, intended occupational status, and years employed; the independent variables were sex and college enrollment; and the dependent variables were job stability, job status, intrinsic job satisfaction, and extrinsic job satisfaction. They found no significant differences in the job stability, status, and satisfaction of transfer two-year college and native four-year college baccalaureate recipients during the early years of their careers.

Siegfried and Raymond (1985) examined the extent to which economics faculty and students agree on the goals of undergraduate education. The faculty found the following two goals more important than did the students: (1) mastering knowledge in a discipline; and (2) preparing for employment. Students rated the following higher: (1) developing research ability; (2) providing for emotional development; and (3) achieving more self-understanding.

An Interactionist Perspective: Student-Environment Fit

Williams (1986) provides new insight into the analysis of the relationship between the student and the college environment. His insight is based on the research and theory suggesting that the degree of congruency, or fit, between a variety of student characteristics and the ability of the institution to respond adequately to those characteristics could lead to increased student satisfaction, academic achievement, and personal growth. In describing student-institution fit, Williams suggests three important factors: (1) student characteristics (e.g., personal attributes, needs, abilities, expectations, interest, and values); (2) institutional characteristics (e.g., array of physical, academic, social and psychological attributes that make up the campus environment); and (3) effects of the interaction between the student and the institution (including the physical, cognitive, and affective interactions between students and their institution).

The empirical findings in the research above support this perspective. Controlling for pre-enrollment characteristics and other factors, academic integration was a major predictor of student academic achievement. The activities that support a student's integration into the academic environment can be manipulated by decision makers in the institution. One of the purposes of this project will be an identification of those various activities that lead to successful academic integration and recommendations for how they may be implemented.

Institutional Strategy and Student Outcomes

Institutional strategy is used here to refer to those broad features of a particular campus which reflect its design and the manner in which that campus functions. In manipulating institutional strategy, one can change the manner in which a campus functions, contribute to the creation of, or respond to the existence of, an institutional culture and climate. Further, through the combination of institutional strategy, academic management practices, institutional culture and climate, and other organizational characteristics, student outcomes may be affected: thus, institutional strategy may influence, both directly and indirectly, the quality of student outcomes.

Institutional strategy is taken to include a number of arenas. Considered below will be: mission definition; academic structure; clientele; governance and leadership; innovation and change; faculty characteristics; and resource allocation. In their turn, each of these variables impacts the student outcomes produced by the institution. This section examines the nature of these variables and their impact upon student outcomes.

Mission Definition

Institutions with clearly defined missions (which often encapsulate liberal education) appear to be characterized by a climate and culture which features small size (Bowen, 1977), high retention (Gosman et al., 1983; Lenning, 1982), high competitiveness (Upadhyay, 1982), and high intellectual outcomes. These inferences are strengthened if the college is highly selective.

Such an image is that provided by Clark (1970) in describing the distinctive colleges, where the culture and climate have been shaped by the attraction of highly able students and faculty, the development of a responsive curriculum, and the accumulation of library and financial resources. For the distinctive college, a key goal was to fix the character of the institution in a particular combination of values and organizational structures. This stability helped create a stereotypical public image of the institution, which encompassed the clarity and specificity of purpose which the would-be distinctive college embodied. In obtaining faculty commitment to the values and structure of the organization, the college could develop its strategy for becoming distinctive and confidently anticipate successful implementation.

Such clarity and specificity of purpose is not common. While Kerr (1982) sees the size and diversity of the multiversity as providing great opportunities for faculty and students, these same characteristics mitigate against a clear and specific mission, consensus on the means to achieve this, and faculty consensus on the values of the college. The creation and implementation of strategy in the multiversity is more a matter of college, school or departmental desire than of institution-wide design, according to Quinn (1979). Multiversities exhibit a considerable degree of decentralization, and as such units below the level of the institution may experience much higher levels of autonomy than might be the case in smaller, more focused, and more centralized institutions.

While small, private, highly selective institutions have received attention (often their own), the conditions of the large, public, open access institutions, or those with unclear mission or few resources, are less documented. According to Wagoner (1985), the community colleges are in a worse position than either the small distinctive colleges or the multiversities. While not hampered by the traditions of a university, the community colleges lack the clarity of purpose which such traditions may accompany. As such, Wagoner sees the community colleges as being unclear of their own identity: attempting to change in response to new situations, without having a clear conception of what the institution seeks to be.

Supporting these observations, Eaton (1984) pointed out that enormous changes have occurred in community colleges, and far more are anticipated, yet community colleges continue to plan and be governed according to a defunct set of assumptions. Eaton argues that to develop better strategies and more long term, purposeful goals, community colleges need to rethink their culture, understand what they have become, as well as what they

would like to believe themselves to be, and plan on the basis of genuine understanding, not preconception, misconception and misplaced assumption.

Lenning (1982) found that institutions with a clearly defined mission had higher retention rates than those without. It may be deduced that clarity of purpose, expressed to the student, is an aid in helping the student to be clear on his/her purposes for attending the institution.

It would seem fair to conclude that, in general, mission in a small, prestigious institution can be far more clearly defined than it can in a larger, public institution, and that this clarity can be more readily expressed when it is specific than when the multiversity seeks to pursue multiple goals.

Academic Structure

Size of institution can have a crucial bearing upon the structure of the curriculum. The multiversity of Kerr (1982), by virtue of its very size, can be comprehensive and offer programs to most levels of students in most fields of inquiry. However, as Clark (1970) points out, the question facing smaller colleges is whether to be comprehensive or distinctive. Clark argues in favor of distinctiveness, for small colleges can never truly hope to become comprehensive, whereas by specializing (usually in the area of liberal education) they can make a positive contribution and attract prestige.

The balance within the curriculum between intellectual offerings and professional courses depends in part upon the flexibility of the program and in part upon the economy. Baird (1984) maintained that programs responsive to the needs of students resulted in higher achievement than those which were more rigid. This would lead one to suppose that colleges exhibiting high intellectual outcomes (which would seem to be small, private, liberal arts colleges) would also operate flexible programs. Further, Fioritto and Dauffenbach (1982) argued that market forces influence aggregate behavior in the selection of courses, and that therefore programs allowing considerable flexibility would likely gravitate toward whatever the students perceived to be economically valuable. It may be that the spread of computer science courses is in part the response of flexible programs to student demand.

The decision of an institution to respond either to the values of the faculty or those of the students may similarly affect the balance between intellectual and vocational program offerings, and may have important implications for climate and culture. Feldman and Newcomb (1969) held that students and faculty differ in their values and goals. Whereas faculty value the aesthetic and making a contribution to their heritage, students seem more concerned with politics, earning money and buying property. Likewise, while the goals of faculty emphasize the development of intellectual capacities, student goals emphasize vocationalism and the development of social competence. Therefore, it seems reasonable to surmise that an academic structure which favors traditional values might be (though need not be) characterized by a more rigid curriculum than might be anticipated in, perhaps, a community college, which aspires to meet the needs and demands of its locality.

Curriculum emphasis, that is, the balance between intellectual and vocational programs offered within an institution, also impacts the climate and culture through the types of students which it attracts. Bowen (1977) maintained that students pursuing different fields of study possessed different characteristics. In their self-selection, students would likely apply when they possessed these characteristics, and others which the institution would evaluate to further homogenize those accepted. The result is that students enter possessing certain characteristics, some important to self-selection, and some to institutional selection, and are then subjected to an accentuation of initial major-field differences. That is, the differences become more pronounced over time. Feldman and Newcomb (1969) pointed out that this polarization is stronger in large institutions than in small.

Citing a Carnegie Commission Survey (Reform on Campus, 1972), Bowen (1977) draws attention to the fact that science and engineering students were less enthusiastic about elective courses than their social science and liberal arts peers. Further, science and professional preparation students were less keen on general education and liberal

education than other students. As Bowen states, "Most evidence supports the view that students differ by field of study in their basic values, their sociopolitical attitudes, religious conventionality, intellectual interests, and other personal characteristics. It would be expected then that institutions with different curricular emphases– music conservatories; colleges of engineering and science; liberal arts colleges; land-grant institutions– would vary in the kinds of changes brought about in their students" (p. 250).

The implication of the above is that institutional culture and climate will be impacted by the academic structure. The critical dimensions appear to be twofold. Firstly, the breadth of the curriculum, which may tend to lead an institution toward the comprehensive or the focused. Secondly, the balance between the intellectual and the vocational, which may reinforce the values of students or of faculty; may attract certain types of students rather than others; and which may lead to different types of outcomes, intellectual and personal.

Clientele

Most of the literature concerned with clientele discusses the matter from the perspective of organizational characteristics which work upon the clientele. Thus, the community college seeks to meet the needs of its locality, and offer programs relevant to the needs of its catchment area, whereas the multiversity may endeavor to provide for the needs and wants of an international student body, whose interests mirror the breadth of intellectual investigation. In this manner, the clientele of an institution are key in determining the culture and climate of that institution.

That said, certain organizational characteristics which impact the clientele need to be considered. Size, type, and prestige of an institution are important determinants of the nature of a clientele. As Gosman et al. (1983) found, extrovert students progress better, in general, at large institutions, and introvert students were more likely to progress better at small institutions. Bowen (1977) pointed out that smallness is also associated with institutional advantage, especially if, as Feldman and Newcomb (1969) suggested, an institution be highly selective and operate successful college socializing efforts. Large institutions tend to be associated with a fall in one's self-esteem (Feldman & Newcomb, 1969), and a higher dropout rate as a result of less student involvement (Lenning, 1982).

Private colleges may promote competitiveness (Upadhyay, 1982), but where this is linked to a highly selective admissions policy, Bowen (1977), Lenning (1982), and Feldman and Newcomb (1969) all saw this as likely to result in high student achievement.

Whether an institution is a two-year or four-year college also has impact for the clientele. Aguirre (1984) maintained that students at two-year institutions had lower aspirations than students at four-year colleges. Further, Baird (1984) found that the level of the highest degree offered by an institution was to some extent predictive of the achievement levels of the students in attendance, and Lenning (1982) found attrition rates in two-year institutions to be higher then those in four-year institutions.

Residential living arrangements have been found to promote an improvement in student achievement when all the students are of high ability (Feldman & Newcomb, 1969). However, a group of mixed or low ability students fails to generally produce an improvement in achievement levels.

Prestige of an institution is also an important influence on the clientele. The students can take on the value of an institution toward academic excellence, as at Reed (Clark, 1970). They may also be less prone to dropout, due either to the financial commitment (most prestigious institutions being expensive) or the ego blow which doing so would represent (Lenning, 1982). Prestige is an important element in the self-selection process of students (Feldman and Newcomb, 1969), and those who apply are either of high ability or high self-confidence, or both. To some extent, a prestigious institution is a self-fulfilling prophecy, since prestige accrues in part because of the student attributes (Ayres and Bennett, 1983), which are the same attributes present in the pool of students who apply for admission because the institution is prestigious.

While clientele would appear to be important in determining the culture and climate of an institution, in that, for example, the academic structure may be more or less relevant to the clientele, depending upon their needs and wants, there is little discussion of this relationship in the literature. Instead, the focus is upon the ways in which size, type, and prestige of an institution impact the clientele.

Governance and Leadership

Governance. The governance structure of institutions is subject to variance both depending upon the type of institution, and upon the nature of a particular decision to be made, at a particular point in time. Whereas Cyert (1981) wanted to see the analytic approach of management science utilized in college governance, Lane (1985) explained that "the distinctive trait of the academic environment is a constantly shifting heterogeneity." The difference between the university and the academic profession is that the university deals with uncertainty, and its goals are ambiguous; individuals tend toward certainty, and employ more specific ways of achieving goals. The university is characterized by a high degree of structural differentiation, and integration is poor: Preferences are problematic; technology is unclear; participation is fluid. In such an environment, "rationality exists at the basic operative level," leaving the university to operate as a garbage can decision producer. Clearly, management in this environment is more complex than in many other circumstances.

Bobbitt (1981) concluded after an extensive review of the literature that there was no "best" way to administer an institution, but this is not to suggest that style of leadership and governance is not significant, rather that individual institutional circumstances need to be factored into any decision regarding style. For example, Nash (1983), while he did not promote a particular style of organizational management, saw this variable as critical to institutional productivity. Likewise, Cameron (1985) described varying dimensions which could be emphasized by the leadership, and discussed their implications. Thus, Cameron saw a flexible, internal orientation as likely to result in a high sense of collegiality, whereas a tightly controlled, externally oriented institution might be characterized by high faculty competition. That said, both circumstances could be satisfying, productive and effective.

Kanter (1981) suggested that institutional productivity may be enhanced when power is attached to a wide variety of positions, and this involvement in the governance structure was shown by Morris and Steers (1980) to impact the level of organizational commitment expressed by employees. Thus, in a participatory environment, which employs a problem-solving approach, one might project that institutional commitment, and hence morale, would be enhanced. For Morris and Steus, the key structural variables which impacted governance structure, and, by implication, commitment, were the size of an institution; the extent to which decision-making was decentralized; the formalization of decision-making; and the nature of control in the institution. Large, decentralized institutions might be able to produce ad hoc, rather than formalized, structures, and control may not be such as to stifle commitment. On the other hand, small colleges marked by a collegial or consensual governance structure, rather than an autocratic presidential style, might also produce high commitment if the faculty perceive that their input does contribute to the discussion.

Dufty and Williams (1979) held that participation in decision-making was both common in, and appropriate to, the university. In research among Australian faculty, he found that contingency management (high participation) worked well, without loss of effectiveness. This result he attributed to the shared internalized norms of faculty, and their high degree of professionalization. From this, one might project that high-participation in decision-making may not only be effective, but also secure commitment and involvement from those concerned in the decision.

Kowalski and Bryson (1982) support the thesis that participatory management is both alive and well at many institutions, and can, and does, work if properly nurtured by top administrators. Enderud (1980), promoting the idea of the university as an "organized anarchy," concurs that participation in decision making is widespread and may be organized or informal: That is, it may be embodied in the structure of the institution, or just instead of, be the result of influence and interpersonal relations. Again, the idea of high

involvement encourages the belief that motivation and commitment will attend any decision. This participatory approach was also described and recommended by Moomaw (1984).

Taylor (1982) found that most academic managers tend to favor the consultative approach to decision-making, and encouraged faculty participation. Though less stressful for the managers, these decisions sometimes become problematic, since faculty commitment to one alternative often precluded an easy recourse to another at a later stage. Thus, participatory decision-making may secure involvement and commitment, but may also be attended by concomitant rigidity in approach, any necessary alterations requiring full consultation if they are to be acceptable, and not threaten the trust of faculty.

While participation may pose problems as well as facilitating the solution of the same, lack of flexibility seems to have only negative connotations. Cameron and Whetten (1983) felt colleges had lost some of the resiliency of earlier times, and were in fact more rigid, conservative, and inflexible than before. Cameron and Whetten utilized a model of the organizational life cycle to indicate that colleges may need to rethink their positions if they are to survive. Indeed, fixed ways of approaching problems is indicative of an aging, declining life cycle, and connotes conditions liable to result in a stagnant environment for faculty, and negative impacts upon student recruitment, retention, and achievement.

Building upon the importance of participation for securing positive involvement and commitment, one may regard the distinctive colleges as the high-water mark of this approach. As Clark (1970) describes it, the central feature of the tenacity with which the distinctive colleges cling to their values and organizational structure is the power of the faculty to control campus affairs. While "team leaders" may be important in other contexts, in a distinctive college they are essential to provide leadership in a collegial environment. Vroom (1984) characterized such presidents as representing high relationship behavior and mature task behavior, which resulted in a participative approach. The opposite of this would be a low-relationship, immature task behavior approach, which would result in a president given to "telling" rather than "participating." Such a president would be anathema to the needs of a distinctive college, marked by a collegial governance approach.

Little of substance has been written of the effect which various forms of campus governance may have upon climate and culture. Most literature focuses upon the president. Even when not specifically discussing presidents, Kerr (1982) maintained that the chief responsibilities of any board were the recruitment of the best possible person as president, and the provision of the best circumstances for that person to work in. Everything else for a board was, to Kerr, secondary.

Perhaps surprisingly, collective bargaining seems to have had little effect upon aspects of institutional climate, though findings are somewhat contradictory. Where faculty unions do exist, Birnbaum and Inman (1984) found no significant increase in either faculty power or salaries. However, Lee (1979) produced an opposite finding, concluding that faculty did, in general, gain more formal governance power through a union contract. Lee defined governance as the decision-making and policy process in academic administration, and found that the most significant contribution of unionization was the establishment of formal grievance procedures which extended to include promotion and tenure. These procedures were perceived by faculty to be fairer and more consistent than was the case prior to unionization. At campuses where faculty senates had been strong, or faculty participation had been common, union influence appeared to be minimal.

The relationship between faculty power and faculty satisfaction is less clear. Gomez and Balkin (1984) found little link between unionism and satisfaction. However, the very fact that an institution is unionized may be significant. Cameron (1982) found that the non-unionized institutions were more effective than the unionized ones. Significant differences existed in the academic domain, and in the capacity of institutions to attract resources. The length of time which an institution has been unionized may also be significant, in that more recently unionized institutions exhibited lower morale and effectiveness than those institutions with older unions.

Clark (1970), in describing distinctive colleges, that is, the prestigious, small, private institutions which concentrate upon undergraduate teaching, found them to be marked by a collegial governance structure. The success of this approach lay in the high degree of shared values which the faculty possessed. Such an approach might be anticipated to be less successful in a large, multiversity, in which great diversity of opinions and values might be expressed, and in which the sheer numbers of people who are involved, and their competing needs and desires, would more likely result in a political structure. Again, it is power which underpins the governance structure, and led Beyer (1982) to conclude that in research-oriented universities, where power is derived from status in the academic marketplace, the balance of power between faculty members and university departments determines whether the decision-making structure will be collegial or bureaucratic.

Leadership. According to Kerr (1982), the college president is the most important figure in the life of the institution. Kauffman (1984) agreed with Kerr, and felt that strong, centralized leadership is necessary for colleges to succeed in the current economic climate. However, this seems to be a minority position. Guskin and Bassis (1985) found that while some leaders were "problem-solving heroes" or "mediators," the result in some cases was that faculty's sense of control over the institution was diminished, and morale suffered. Guskin and Bassis recommended the "teamleader" approach to leadership at a time when creativity is needed for institutional renewal.

Mortimer and Caruso (1984) saw the task of the president as both difficult and central, but believed that an open-governance style would better facilitate the resource reallocation, enrollment management, and retrenchment problems currently faced. Features of open governance are early consultation with affected parties; joint formulation of policies; time for affected parties to formulate responses; free access to information; and clear, adequate feedback at all stages.

Leadership style can play a crucial role in maximizing the responsiveness of an institution to changing environmental conditions, yet Alfred (1984) maintained that many presidents or chancellors were not fully equipped to lead institutions in an optimal fashion at a time of rapid charge. Mehrotra (1984) suggested that somewhat conservative presidents might not possess a sufficiently vital conception of how to respond to changing conditions, and the implications of such conservatism might be found to affect institutional vitality, faculty morale, retention and recruitment of students.

While a conservative approach, in the face of rapid change, may be detrimental to an institution, unfettered liberalism is not a better solution. This is why Guskin and Bassis (1985) shied away from the "hero" or "mediator" approach, and emphasized the team leader. Such an approach encourages a culture and climate in which mutual influence is respected, and faculty access to key administrators is enhanced. One may again project the likelihood of improved faculty morale under such conditions.

The nature of governance and leadership within institutions is directly related to institutional effectiveness. Cameron (1983) found that fluidity, innovation and adaptability to the external environment are important measures of effectiveness, as are administrative flexibility and wide participation in decision-making.

A flexible approach to leadership was also recommended by Baldwin and Krosteng (1985), who paraphrased the work of Gardner in suggesting that the release of the full potential of faculty could only be achieved through a management orientation interested in the development of that faculty. For this purpose, various academic rewards might be arranged, but the importance here is that the leadership recognize the need for, and purpose of, development, and act to promote it. According to Baldwin and Krosteng, it is the task of governance to involve faculty, in order to maintain their vitality, and to recognize and reward them through an appropriate incentive/reward structure.

Guskin and Bassis (1985) characterized three types of leadership style, and concluded that, in practice it was the "team leader" approach which yielded the most benefits for the climate and culture of an institution. The "hero" president attempts to provide solutions to the problems of the campus by his/her own efforts. The "mediator" president negotiates

solutions between competing power blocks on campus, and ultimately bows to political power, rather than leads the campus forward. The "team leader" president emphasizes broad participation, which results in solutions which emerge from the interplay of creative ideas, and the interaction of faculty, staff, and administrators. Moreover, such decisions induce the commitment and involvement of the participants, enhance their understanding, improve the prospects for implementation, and thus improve the climate and culture of an institution. Student outcomes are enhanced by a better decision process, greater campus commitment from the faculty and administration, and the improved culture and climate which produce a more productive environment in which achievement levels may be improved.

It is worth noting that, while much of the literature supports the idea of a "team-leader" approach (Guskin and Bassis, 1985), "participatory management" (Kowalski and Bryson, 1982), and the "consultative approach" (Taylor, 1982), there is regrettably little indication as to which objective institutional characteristics may result in which governance structures. No clear pattern seems to emerge by which one might predict the governance structure by knowing the objective characteristics.

Summary. While there is little to suggest that particular governance styles are necessarily related to particular student outcomes, governance and leadership do contribute to the culture and climate of an institution. The pattern of representation in the governance structure determines whether commitment must be earned or is incorporated in the decision-making process. Bureaucratic, collegial, consensual, and political practices are all discussed in the literature, though the rational model is conspicuous by its absence. Size of an institution, the location of power and extent of involvement in decision-making determine whether governance will be participatory, centralized or decentralized, formal or informal. Collective bargaining arrangements seem to play little role in governance issues.

In terms of leadership, the important dimensions are the extent of openness which the leader exhibits; the nature of the approach, be it hero, mediator or team leader; and the flexibility expressed. Leadership is clearly held to be of importance in the literature, to the extent that some question the capacities of some presidents and chancellors to be leaders, with negative implications for culture and climate where inappropriate persons hold such positions.

Innovation and Change

Managing change in the 1980s and beyond is, for Koltai (1980) the foremost characteristic and challenge facing colleges. That said, Hopkins (1984) argued that education generally lacks an understanding of change, particularly in relation to the organizational features which promote it. Hopkins described three types of change: accidental change, which broadly defines systemic change, such as the redistribution of resources in response to declining and shifting enrollment; purposive change, a proactive approach to ameliorate the effects of change which is predicted; and innovation, the importing of a technological package into an institution for the prosecution of its activities. The institution has no real control over the conditions which necessitate either accidental or purposive change. However, innovation is entirely at the direction of the institution. Thus, it is in the arena of innovation that the institution can really seek to impact its environment.

While they maintained that the presence of certain characteristics of an environment were not sufficient condition to create an innovative culture and climate, Guskin and Bassis (1985) did believe that certain characteristics contributed to the likelihood of such a situation. They wrote, "It is not always true that a university environment that has a clear set of goals and priorities, integrating mechanisms to facilitate collaboration, and a faculty with a sense of pride, security, and ownership will be creative in its educational programs and supportive of reform efforts. Nonetheless, creativity and change are more likely to flourish in such an environment than in almost any other. At the very least, there is more potential for creativity and reform in such an institutional environment than in one marked by insecurity, conflict, ambiguity, and fragmentation." (p. 21) Clearly, an environment emphasizing the former set of characteristics will more likely be innovative than one promoting the latter criteria.

Where an innovative environment exists, the impact upon climate and culture can be dramatic. McKeachie (1983) described the result of an administrative approach which encouraged rather than restricted faculty initiative as likely to contribute toward the maintenance and improvement of faculty vitality. As a contributing factor in the creation of organizational culture, innovation aids in positively influencing the objectives and performance of faculty members, according to Baldwin and Krosteng (1985). Innovation thus contributes to the improvement of the campus culture and climate, and in improving faculty performance it may well improve student outcomes.

Innovation may also reverse negative trends on a campus. Altschuler and Richter (1985) wrote of the importance of innovation in combating faculty burnout. In encouraging faculty to introduce new readings and new methods into their teaching, and in avoiding the creation of a static curriculum, the administration can both help prevent the faculty from becoming unenthusiastic, and help improve student outcomes through their revitalized faculty.

One problem with the creation of an environment which fosters innovation is the sacrifice that may have to be made to achieve it. Cameron (1985) suggested that innovative conditions require an institution to respond flexibly to situations, and be responsive to external conditions. To do this, he maintained that ad hoc task forces, loose-coupling, and fluidity were necessary. However, these are the opposite of the conditions required of a tightly controlled, efficient institution which is engaged in long-range strategic planning: The focus in this kind of situation is upon the internal environment, and the control of the institution. Thus, paradoxically, it may well be that an institution which is marked by this innovative environment may simultaneously reflect other less desirable features, such as poor efficiency, inconsistent planning, or weak administrative control. That said, Peck (1984) found that, among several features which characterized successful small colleges, included were innovation, creativity, intuition and effectiveness rather than efficiency.

Innovation is seen to be at the direction of the institution and clear goals, integrating mechanisms and faculty pride will assist in its promotion. The existence of innovation contributes to the improvement of faculty performance and vitality, which in turn leads to improvement in student outcomes. Innovation is thus to be seen as a positive influence upon culture, climate, and student outcomes, though it needs to be carefully managed since it may mitigate against tight control and efficiency.

Faculty Characteristics

The characteristics of faculty members contribute significantly to the climate and culture of an institution. Peterson and Cooke (1983) found that the extent of openness of interpersonal relations among teaching staff and the teachers' assessments of their students can significantly affect their leadership behavior. Indeed, Ganesan and Rajendran (1981) found that faculty either influence their environment or adopt its norms, since research in India indicated that there exists a significant correlation between faculty personality orientations and organizational climate dimensions such as conformity, rewards, warmth and support. Interpersonal relations between faculty and students were also an important concern for Lenning (1982). He suggested that the genuineness and strength of faculty members' interest in and concern for helping students learn relates positively to student persistence.

Bowen (1977) found that institutions differed considerably in the nature of student-faculty contact. He held that there was a belief that the influence of faculty upon students could be substantial. Drawing on the work of Gaff, Bowen concluded that involved faculty had more effect upon students, perceived that they were more effective, and were perceived by students to be more effective. This resulted in better outcomes both for faculty satisfaction and student satisfaction, which implied improved student involvement and persistence. As Feldman and Newcomb (1969) stated, faculty can be models or antimodels for students, and the more positive the model, the higher the aspirations of students. Faculty characteristics and attitudes can mold the culture and climate of an institution. Clark (1970) claimed that the most significant influence in the emergence of a distinctive culture at Reed College was that fact that the faculty identified with a conception of the college and were determined to develop and protect that concept. Through tenaciously sticking to a shared set of values, the college developed its distinctive character.

It would be wrong to think that the faculty can ever be characterized by a single viewpoint. Rugg et al. (1981) suggested quite the opposite, that faculty viewpoints are not uniform, though the political orientation of faculty may explain the apparent consensus within individual departments. The extent of consensus is issue dependent. Faculty tend to agree upon the importance of intellectual pursuits, academic instruction, research, and adequate compensation. There is far less consensus surrounding public service, nontraditional education, accountability, athletic competition, and social and moral issues. These findings have important implications for planning and change implementation, in that consensus and commitment is more easily obtained for some issues then others. It is also worth realizing that faculty in certain disciplines are more amenable to certain types of change then are their colleagues, depending upon what the issue is.

This fragmented viewpoint was also identified by Stern (1982), who saw the academic community as increasingly lacking a sense of unity or shared value. Weick (1983) also questioned the accuracy of any shared opinion or common value. Institutional cohesion requires that individual accuracy be subsumed: It is thus a compromise position for any faculty member and may result in cognitive dissonance and stress for the individual.

An interesting study by Townsend (1985) found that faculty tend to be quite conservative in their attitudes toward institutional directions and planning. A survey of faculty in the Virginia Community College System revealed that most faculty preferred traditional directions to be adopted by their institutions. This has clear implications for the desirability, implementation of, and commitment to, innovation and change in institutions where this is radically at odds with more conservative, traditional practices.

Neumann (1980) attempted to examine the relationship between organizational climate and faculty attitudes towards collective bargaining. He found that the perceived power structure was the dominant predictor of faculty attitudes towards collective bargaining and unionization in a labor dispute. At institutions with unfavorable labor relations, the relationship between perceived power and unionization is strongest. Perceived institutional goals do not affect faculty attitudes toward collective bargaining, but perceived inequity is positively related to it. Newman concluded that the perceived power structure might be a potent cause of strike activities, and recommended that central administrations pay considerable attention to it.

Collective bargaining has led faculty to assume more responsibility for the governance of their institution. One result of this assumption of responsibility is the concern the faculty are expressing to have a role in structuring the goals, objectives and incentives related to professional development and curricular concerns. The outcome of this is the emergence of faculty development as a bargaining issue, according to McMeen and Bowman (1984), and this has potentially far-reaching implications for professional renewal and institutional governance.

One final concern in the discussion of faculty characteristics focuses upon the demographics of the faculty body. Demographic consideration concerning faculty members was a concern for McCain et al. (1983), who reported that university departments with substantial age gaps between one cohort and another, or in which a large proportion of the faculty had entered at the same time, experienced significantly higher turnover than did departments not so characterized. McCain concluded that demographic considerations are of importance for any organizational analysis of universities. In particular, it may be that an aging faculty, or one experiencing high turnover, may not be either current in their field, or stable in their situation. In such conditions, one might project a weakening of student outcomes and achievement.

Faculty characteristics are important both in shaping the climate and culture of an institution, and in contributing to student outcomes. Important considerations are the relationships between faculty and students; the views and attitudes of faculty, which seem to tend toward the conservative; the extent of satisfaction/dissatisfaction; and the demographics of the faculty.

Resource Allocation

The nature of budgeting and resource allocation clearly has impact upon the climate and culture of an institution, and upon student outcomes. Pfeffer and Moore (1980) saw power as the crucial feature in resource allocation, and maintained that departmental power, a function of departmental enrollment and the level of departmental grants and contract funds, was central in resource allocation decisions. Thus, one might project that large, well externally-supported departments would have more influence, and likely command far more resources than their lesser colleagues. This has important implications, for it assumes that strong departments will become stronger, and weak ones likely weaker, unless the administration can take a sufficiently broad, institutional view, and rise above departmental power politics.

Such a situation likely calls for a leader with a strong vision of an institution and the will to see it realized, such as Cameron (1984) describes. Without such leadership, the weakening of certain departments to the benefit of others would impact both the balance of faculty and of students upon the campus, with the result that student interaction, while it may enhance retention and be reinforcing, will lack the variety which Lenning (1982) felt was useful in nurturing tolerance.

Hackman (1985) also saw the institution as characterized by a political struggle, and identified power, expressed through the governance structure, as being crucial in any discussion of budgeting or resource allocation. According to Hackman a department's internal resource allocations will be determined by its centrality, that is the degree to which its basic mission is supportive of the central mission of the institution, in interaction with: (1) its power in obtaining external resources; (2) its power within the institution relative to other departments; and (3) the negotiation strategies it uses in obtaining internal resources. Hackman's research revealed that departments central to a university made gains by strengthening themselves, obtaining external resources needed to fulfill their own missions, and stressing departmental needs in resource negotiations. Peripheral departments made gains when they strengthened the contribution they made to the institutional mission, obtained external resources needed for the entire institution, and stressed institutional needs in resource negotiations.

Tierney (1981) points out that resource allocation has serious implications, since such decisions may not be in response to priorities, but may determine priorities. This is possible because, without a clear plan and general consensus to it, there may be little agreement as to what campus priorities should be. The resulting climate might be characterized by the prosecution of departmental, rather than institutional policies, with a correspondingly mixed effect upon student outcomes. Efforts to build a more rational resource allocation policy, and hence facilitate a more planned pattern of student outcomes, becomes possible when there is top-level administrative support for the policy; in-house expertise to evaluate the policy in relation to the institution's needs, processes and structure; a governance process allowing for considerable consultation; and the existence of a good information system. Where these conditions exist, one might project the production of better quality student outcomes.

The cost-effectiveness of special programs raises further questions concerning institutional resource allocation. The most common approach currently employed is incremental budgeting, by which proper and evitable increases are annually approved. While Tierney (1981) sees this process as embedded in the campus political structure, and hence contributes to the maintenance of a campus status quo (an uneasy truce between competing faculty), it concurrently hinders innovation or major program development. As such, it represents a compromise between different aspects of culture and climate: In avoiding a campus "budget-war," the capacity to innovate and develop programs must be curbed. If there is imbalance in this compromise, the result would likely either be a worsening in faculty morale and collegiality, since infighting and power politics would be occurring (with the weak faculty particularly disenchanted); or a slowing, to the point of stagnation, of innovation and program development, with consequent impact upon student outcomes in the realms of learning, achievement, and retention.

Tenuous as the balance is in incremental budgeting, it would seem preferable to "systems" budgeting, such as PPBS or ZBB. Tierney (1981) comments that these approaches ignore the sociopsychological incentives: Thus, in trying to rank order priorities, faculty would likely become divided and disenchanted, and the power politics referred to above might be anticipated. What is needed is an environment where priorities can be agreed upon, which would likely be found in the small colleges with strong shared values, or via an incentive system designed to elicit certain behaviors. An example of this latter is income-expense budgeting, in which academic planning is linked to fiscal reality at the departmental level. Again, the problem may be that a department chooses to emphasize that which the institution does not value, and this once more raises the question of the efficacy of institutional planning.

The key dimensions in the discussion of resource allocation and its impact upon culture, climate and student outcomes seem to be the extent and nature of power on campus; the centrality of any unit seeking resources; the nature of distribution practices and the degree to which decisions are made on the basis of rational or political considerations. To the extent that the rational is emphasized over the political, one may project a positive impact upon culture, climate and student outcomes.

Academic Management Practices: Impacts on Culture, Climate, and Student Outcomes

Academic management practices affecting culture, climate and student outcomes may be broadly grouped together under the following headings: academic planning; academic management and support systems; faculty management and support systems; evaluation and assessment; and academic information systems. Each of these will be considered in turn.

Academic Planning

Academic planning is here used to describe various practices which identify and operationally define the efforts of an institution toward particular ends. Important aspects are the contribution of the planning process and the compatibility of various goals and activities.

Planning processes which provide for face to face contact are more likely to positively affect culture and climate, reducing mistrust and enhancing understanding, than processes which rely upon formulae or other impersonal approaches. Farmer (1983) felt that planning would be more successful at campuses which embodied this interpersonal approach in a formal, structured planning process.

While interpersonal contact may not always be feasible, depending upon characteristics of the institution, the open availability of information utilized in the planning process can be provided for involved parties via an adequate management information system. Ramsey (1981) regarded a campus which shared information in this manner as being characterized by a greater sense of understanding and commitment than otherwise. Commitment is also necessary if innovation is to be successfully implemented, and for this reason Kolebrander (1983) and Webb (1984) both highlight the need to involve the faculty in planning, to facilitate understanding and trust. For these reasons, centralized planning, resulting from the deliberations of a president and a board, would seem less likely to be readily implemented on a campus, and may well have a negative impact upon faculty commitment and morale, with a consequent effect upon student retention and achievement.

At the campus level, planning can directly affect the culture of an institution. Morgan and Newell (1981) described the problem facing small colleges of whether to be distinctive or comprehensive: The decision made will impact the culture of the institution, either by rendering it distinctive, and thus imparting a particular combination of values and organizational structures (Clark, 1970) or by leading it toward comprehensiveness, and perhaps mediocrity by spreading resources too thinly. Like Clark, Morgan and Newell favored institutions who tended toward distinctiveness for producing more positive student outcomes.

Depending upon the governance pattern at an institution, the style of planning may vary. Gilley (1985) found that the perspective which a president brings to his or her position can be a critical factor in moving an institution forward if allowed to surface. Conversely, Harrison (1985) found that in community colleges participative goal setting was felt to be the desired planning method. Clearly, the type of governance pattern impacts the planning structure within an institution, and influences the commitment and understanding which faculty and staff may possess for the process.

The purpose of planning has implications both for the decisions reached, and their impact upon the climate and culture of an institution. Lenning (1980) saw needs assessment as a viable tool in planning, whereas Gunnell (1979) proposed planning to maximize program effectiveness through resource allocation and St.John (1981) favored planning for improved management. Lack of clarity as to why planning is proposed, or being undertaken, is again a source of misunderstanding, mistrust and lack of commitment, with the attendant implications already discussed.

Davis (1982) emphasized the importance of the formal organizational structure of a successful planning process, claiming this was just as important as faculty motivation and involvement. An established, formalized planning process can develop formal lines of communication, can be identified and understood, and, by virtue of being identifiable, can more readily be trusted. Ad hoc, anonymous planning committees, whose information sources, and intentions, may be unknown are most unlikely to generate similar levels of confidence.

The pursuit of more than one strategy or goal often results in a clash of interests. Cameron (1984) identified the existence of paradoxical activities within some institutions, and argued in favor of flexibility at the institutional level, so that a suitable response may be fashioned to meet each need. Cameron maintains that an approach which allows for contradictory or paradoxical activities is actually superior to a simplistic, linear approach. Indeed, campuses should encourage paradox as a way to enhance institutional effectiveness, through the promotion of flexibility in administrative thinking and institutional strategy. By responding appropriately, the institution can avoid the negative effect upon climate and culture which rigidly enforced, fixed policies can have. It would appear that, to some extent, the applicability of this approach is dependent upon the unit of analysis. In a small institution, or a department of a larger one, the pursuit of multiple goals by multiple methods may be counterproductive. However, in the multiversity, this may be the only way to progress towards the many goals which that type of institution possesses.

For students, the approach may be disconcerting owing to the inconsistency which it represents, but it may also simultaneously have positive effects upon recruitment, retention and achievement, since appropriate responses to different situations, rather than a single, institution-wide policy, become possible.

The implications of the above would seem to be that institutions will promote a better climate and culture when planning emphasizes personal contact, extensive involvement, and wide access to information. Successful planning needs to be purposeful, and clearly understood, and will benefit from the existence of a formally organized structure. Beyond this, planning will also likely contribute more positively to the institutional climate and culture, and hence assist retention and recruitment, when it possesses the capacity to recognize, accept, and even welcome the existence of paradox. In a less flexible situation, one might reasonably project the opposite effects upon these outcomes.

Academic Support Systems

Academic management broadly describes the process of program planning, development and evaluation; and the provision of special programs. Seeley (1981) saw the whole planning, evaluating, and budgeting process as linked. Depending how clear the goals of the process are, the process can either lead to improved colleague relations if clear, or an increase in frustration if not. Regrettably, as Hall (1981) observed, higher education tends to underemphasize goals and overemphasize uncertainty and loose-coupling: Thus, a precondition is met which allows more for a negative outcome than a positive. Moreover, goals may not be agreed upon even when clear, for, Kamens (1980) pointed out, different ideologies concerning goals pertain in research, as opposed to teaching units. Weisbord (1978) also saw colleges and universities as characterized by multiple and unclear goals, and claimed that this created a climate in which evaluation became a difficult and controversial matter, and in which administrative action might be viewed by faculty and staff as being capricious or irrelevant.

Program planning, and curricular offerings may influence the climate and culture of an institution, or be influenced by that climate and culture. In the distinctive colleges described by Clark (1970), the curriculum resulted from the deliberations of a faculty exhibiting a collegial style of governance, and was a curriculum which supported academic vigor and traditional values. This curriculum helped convey a sense of purpose, clear goals, and distinctive mission, and thus helped mold the climate and culture. However, as Wagoner (1985) observes, the community colleges are essentially responsive and reactive to the needs and demands of their locality. The climate and culture in these colleges is marked by uncertainty, and a lack of clarity, which can result in confused curricular

offerings, inconsistent and poorly planned resource allocation, and poor evaluation processes. The conclusion from this is that clarity of goals and values is important in identifying needs and planning programs to meet these curricular needs. Culture and climate both assist in creating the type of planning process extant (are there clear goals and values), and is shaped by the results of the process (are the offerings logical, valuable, and properly financed; do they express the goals and ideals of the institution). Successful program planning will reinforce the goals and values of an institution, and produce an improved climate and culture in which the faculty, possessing a clear conception of institutional mission, will be better motivated and less prone to burnout. Students will be less prone to dropout, and may achieve better.

That better program planning results in better student achievement levels (grades) is attested to by Baird (1984), who found that the extent of prescription in a curriculum tended to be negatively correlated with student achievement. Students generally did better when curricula were flexible, and responsive to their desires. Factors other than curriculum were important too, however, including location, admissions procedure, and college type: Hence, one may not always associate a flexible, responsive curriculum with high achievement.

Ayres and Bennett (1983) found that the chief variables which impacted student achievement levels were the quality of library facilities; the extent of available financial resources; the curriculum design; and the quality of the faculty. Better learning materials, better faculty, and more resources all seem obviously related to better student achievement. Curriculum design requires that the mix between prescription of what the faculty believes the student needs to know, and flexibility for the student to obtain this knowledge and pursue a program which is logically consistent and meets his/her own needs and desires be balanced. The exact blend of prescription and flexibility is impossible to pinpoint, varying with circumstances, but the absence of a good mix will likely be identified by high attention if it is too prescriptive, or poor achievement levels if it is flexible to the point of allowing illogical progression.

Program evaluation, described by Seeley (1981) as the forming of an opinion "about the merit and future development of a program" (p. 45), should be a continual process, and formally organized. Campuses where this is not the case run the risk of stagnation in the program, and perhaps the faculty, with undesirable implications for student achievement, retention, and the currency of their knowledge base. Seeley maintains that institutional receptivity to program evaluation is dependent upon organizational characteristics (faculty morale; institutional autonomy; workload patterns), institutional complexity (size; degree of centralization), and leadership (stability; state of the management information system; qualifications of those conducting the review). Systematic program review is a relatively new phenomenon, and may in part represent a psychological threat to the expansion of previous years. For these reasons, campuses may manifest different approaches to program evaluation, some more comprehensive than others, and may also exhibit greater or lesser degrees of confidence in the results of this review, and in consequence be more or less enthusiastic about the implementation of review findings. Where program evaluation is informal, unclear, and mistrusted, one may project that the impact upon student outcomes will be less positive than in a climate in which support and confidence for the process is high, the goals and purpose are clear, and there is a formal structure by which the process is both conducted and implemented.

In analyzing special programs, Sherman (1985) focused attention upon the institutionally controllable variables, which he referred to as institutional events and instructional techniques external to the learner and which have the potential to affect learning. These institutional events included: Class size; course structure and sequencing; temporal organization; and institutional standards. Sherman claims that these institutional events have previously been de-emphasized, but have important implications for student learning, satisfaction, achievement and retention.

Special programs for high-risk students, while their effects are basically positive, produce highly cost-ineffective results, according to Kulik et al. (1983). The effects produced include better student integration and involvement, better study skills and achievement levels, and higher retention. However, the costs and resources needed to produce these outcome

improvements, which are actually fairly small, are enormous in relation to the extent of their success.

Interestingly, Abrams and Jernigan (1984) found that for students who successfully completed a special program for high-risk students at Michigan State University, there was no significant correlation between high-school GPA and college GPA. They concluded that this program was particularly effective, and should be required of all students who are potentially high-risk. Further, the success of the program brings into question the validity of traditional admissions standards, given the absence of significant correlation between high-school and college GPAs. For student outcomes, the implications are that well organized and presented special programs can have a significant effect upon achievement and learning, and may enable the institution to "convert" students, as Feldman and Newcomb (1969) called it, from poor high school students to competent college students. Such results would also likely enhance the student's satisfaction and self-concept levels, and aid in retention.

The important dimensions in academic management appear to be the degree to which program planning carries the support of the faculty and students, and contributes to a sense of institutional distinctiveness; the adequacy of facilities for faculty and students; the legitimacy of the program evaluation process; and the quality and cost-effectiveness of special programs. Academic programs carrying little support are unlikely to produce high intellectual outcomes; poor facilities are also unlikely to produce high student intellectual outcomes, or promote morale among faculty and students. A program evaluation process which fails to command legitimacy will further depress morale among faculty; and poor quality or cost-ineffective special programs will contribute little to intellectual outcomes, and direct resources away from areas where they might better be expended.

Faculty Support Systems

Faculty support systems may be understood as comprising five broad headings: need and selection; the reward system; morale and working conditions; development; and evaluation.

Need and Selection

How faculty are selected, and the manner in which institutions determine in what areas they require new faculty, are both issues which deserve attention in any discussion of campus climate and culture, and certainly impacts the quality of student outcomes; however, these are issues which seem to have drawn scant attention in the recent research literature. Discussion of faculty recruitment seems linked to departmental power in large institutions, and to governance structure in smaller institutions, but there appears to be little information available.

The Reward System

Regarding reward, Hall (1981) is quick to point out that university management, and that of faculty in particular, is unlike that of business. This being so, many of the business approaches which have been adopted by institutions have failed, because they only fully function in a given set of conditions, which is not that pertaining to academe. For this reason, it is necessary to understand the particular needs and desires of faculty members.

Weisbord (1978) recognized that most professors, unlike most businessmen, derive major rewards from sources external to their institution. In consequence, it may be easier for an external source to motivate a professor than for the institution, and in particular Weisbord sees this as having a negative impact upon efforts to create an innovative institutional climate. The institution which can do this will be the one which understands how to reward and motivate its faculty.

Specifically, Tuma and Grimes (1981) presented five dimensions which an institution should attempt to address when examining ways of influencing their faculty. Their five dimensions were: (1) professional commitment; (2) commitment to organizational goals; (3) organizational immobility; (4) external orientation; (5) and concern with advancement.

Institutions capable of identifying the dynamics of these dimensions would likely be better able to motivate their faculty, and motivated faculty are more likely to produce positive student outcomes than faculty not so motivated. For rewards to be effective, they must command legitimacy in the minds of faculty members. Kamens and Sarup (1980) found that this legitimacy was weakened when faculty were discontented with the governance structure of an institution. Therefore, efforts to minimize faculty discontent should be pursued, and as Taylor (1982), Guskin and Bassis (1985) and Kowalski and Bryson (1982) all suggested, a consultative/participatory/team approach to governance is most likely to secure a mitigation of discontent.

In referring to part-time faculty, Tuckman (1981) held that discontent among this group could be minimized where their role was clearly defined; their legitimacy (qualifications) to teach was ensured (and hence would not be second-class academic citizens); they received the same benefits, proportionately, as full-time faculty; and they were involved in the academic life of the institution.

To bring about the proposed improvements in the faculty, institutions may attempt to manipulate the reward system. Baldwin and Krotseng (1985) stated that colleges and universities typically reward involvement in the administration with substantial salary increases, and similarly reward publication, particularly of articles but also of books. Public service was much less frequently rewarded, and outstanding teaching was hardly ever rewarded. Such monetary rewards communicate to faculty the values of an institution and its faculty. Likewise, promotion indicates the esteem of one's peers, and special honors and awards provide similar indications. These can all be important features in shaping the work orientation of a professor.

However, a major source of dissatisfaction for faculty is the inherent ambiguity of their situation: Role problems are rife, particularly those concerning the division between teaching, research, and public service. Willie and Stecklein (1982) found that teaching still dominates the activities of faculty, but that research productivity has also increased dramatically over the past 30 years. This ambiguity in the teacher/researcher/public servant role is further exacerbated by the academic reward system, which Baldwin and Krotseng (1985) have described, and it should not be seen as surprising that faculty may choose to concentrate their best efforts into their scholarship. The impact of this may vary, but even a cursory examination must note that, in an institution which consistently rewards scholarship, fine words concerning a desire to improve teaching will likely have less impact than fine words backed up by visible signs of reward and recognition. Therefore, it behooves an institution which desires to see an improvement in teaching to visibly reward the same.

Faculty Morale and Working Conditions

Faculty management requires more than just academic reward. Involvement is of key importance, and Baldwin and Krosteng (1985) hold that the aspirations of faculty members may be fueled by the presentation of opportunities for professional growth and development, plus a sense of personal power. Brakerman (1983) urged the provision of research support money for young scholars, to impart a sense of worth and involvement to them, and Marker (1983) recommended that purposeful sabbaticals, with clear goals rather than simple recuperation, could enable faculty to develop a new area of expertise and thus be a more valuable resource upon their return. Baldwin and Krotseng (1985) are clear, though, that in order to create an environment conducive to high energy, quality work, professional development, and vitality, institutions would likely have to provide an array of incentives, rather than hope that one or two principal types will meet all needs.

Rather than simply encouraging the positive, administrators also need to be able to recognize, and act to counter the negative, if deleterious effects upon climate, culture and student outcomes are not to result. Altschuler and Richter (1985), in their discussion of faculty burnout, characterized the burnout victim as one who is reluctant to teach; feels little involvement in, or control over, his/her work; may resist faculty development efforts; refers derogatorily toward students; and whose productivity is poor. Burnout may result from several sources: overwork, or the lack of a suitable break; poor fit between self-values

and those of the institution and colleagues; or stagnation in a routine situation. Combating such a situation is the task of academic managers.

While not suitable to every situation, Altschuler and Richter (1985) suggest that administrators acting to prevent or reverse burnout should require of a faculty member a detailed syllabus, with enunciated objectives. The important thing is to avoid a static curriculum, by encouraging teachers to select new readings, and having learning resources centers order new materials on a regular basis. Further, rewards and values should be clearly linked, so that if improvement in teaching is desired, its achievement is rewarded. Additionally, retraining in a new field may enervate a faculty member who is showing symptoms of burnout. At campuses where these practices are employed, it seems reasonable to project that the effects of burnout (lack of commitment and involvement; derogatory attitude to students and colleagues; low sense of personal worth; poor quality and quantity of work), and the accompanying student outcomes (high attrition; low achievement; outdated knowledge base) will be mitigated.

Key to maintaining productive faculty is the maintenance of good faculty morale. Baldwin and Krotseng (1985) considered certain features central to the preservation of a climate conducive to faculty achievement and vitality. A sensitive, sympathetic administration was needed, responsive to faculty needs, together with a feeling of autonomy and control for faculty members over their work. Additionally, peer support and stimulation from colleagues also were important contributors to the sense of well-being.

High morale in a climate conducive to achievement and vitality can contribute significantly to institutional productivity. Lane (1981) pointed out that where morale is high, commitment is widespread, and this commitment contributes to productivity. An administration can help create these conditions, according to Baldwin and Blackburn (1983), by encouraging professors to adapt their careers to emerging interests and opportunities. Another finding with interesting implications for administrative policy is that of Taylor et al. (1984), who discovered that research productivity in both quality and quantity was associated with working on multiple tasks and high commitment to those tasks. The suggestion would seem to be that an administration which encourages its faculty to work on several projects, largely of their own choosing, simultaneously will likely have a committed, contented and productive faculty.

According to Guskin and Bassis (1985), three things influence the quality of life of faculty members: security, ownership, and pride. A faculty which feel that both their institution and their individual positions are secure enjoy a better quality of life than one plagued by uncertainty. A faculty which take responsibility for decisions on campus, and are involved in decision-making and policy implementation will be better motivated than one less involved. Finally, a faculty who feel their institution is prestigious; its policies fair and consistent; and which commands high public esteem and is of real quality, will have a greater sense of pride in their institution than a faculty which lacks these perceptions. The overall result of this is an enhanced quality of life.

Also important in maintaining a vital faculty are the working conditions which pertain in an institution. As noted above, these may be enhanced by facilitating informal meetings; providing excellent equipment and facilities; and providing adequate secretarial, library and computer services. Without these, as Baldwin and Krotseng (1985) observed, one may quickly encounter faculty frustration, with its accompanying negative impacts upon climate, culture, and student outcomes already described.

The quality of academic work life correlates highly with the motivation and performance of faculty members, and hence with student motivation, aspiration, achievement and retention, according to Baldwin and Blackburn (1983). They held that the distribution of a faculty member's workload influenced the amount of energy and vitality a faculty member possessed, and that the structure of a work week also influenced vitality and productivity. Furthermore, an efficient committee system could protect energy and enthusiasm, and good facilities and equipment could enhance faculty efficiency and productivity. The exchange of ideas, and professional collaboration could also be promoted by comfortable meeting places, such as dining rooms or libraries. Baldwin and Blackburn went on to state

that secretarial, library, and computer assistance could all facilitate academic work, or result in frustration, and that keeping faculty in touch with others on other campuses, through journals and conferences provided for a systematic exchange of ideas, and enhanced productivity.

Faculty Development

Interestingly, Wurster and McCartney (1980) claim that private colleges have been more willing than public ones to accept their responsibility to support faculty growth, because this has often been in accord with the proclaimed humanistic traditions or religious values of many such institutions. Many of these institutions have linked faculty development to institutional planning processes. Such activity has not been the exclusive province of private colleges, however, and some public universities have integrated instructional improvement programs, professional development activities and organizational change strategies as a means of assuring a high quality of education and of creating a more dynamic institution.

> evelopment programs are characterized by certain features which were identified (1983). Top-level administrative support was felt to be crucial, as was a o the needs of faculty members. Along with this support and concern, a structure, including development centers, advisory boards, and organized ard structures, proved efficacious. As with planning, it appears that the of ambiguity, uncertainty, and threat is important, and is facilitated by the nce of a formal organizational structure.

Reilly (1983) suggested that faculty development programs would be more effective if they were linked to program needs. This would be both cost-efficient and program-effective, and would result both in enhanced faculty involvement and improved program effectiveness, and hence improved student outcomes.

The use of incentives in faculty management has important implications for development programs. Toombs (1985) offered an assessment of various forms of development programs, and found that, from among more than 20 possible programs, the provision of grants to faculty for the purpose of developing new approaches to courses was by far the most effective. However, the most commonly utilized development tool, student assessments of faculty, had a far less pervasive effect. Other effective, but poorly utilized approaches include senior faculty acting as mentors to new faculty; formal "growth contracts" or personal development plans; and specialist assistance in instructional development and course design. More commonly, campuses engage faculty in workshops; provide assistance in instructional technology; and arrange formal class visitations. The conclusion from the above is that various approaches to faculty development are available, and while some are more effective than others, these need not be the ones necessarily invoked. One may project that those campuses utilizing the more effective methods will likely more positively impact development, and hence culture, climate, and student outcomes, than campuses using less effective methods, and one may also anticipate that these more successful campuses are in the minority.

Hammons (1983) discussed the importance of linking faculty evaluation to faculty development, if the former was not to be fraught with difficulties. Hammons identified the three variables which were necessary for faculty improvement as being faculty ability; faculty motivation; and institutional climate. Ability depends upon the success of an institution's recruiting program. Motivation is influenced by environmental, organizational, and personal characteristics described earlier. Institutional climate is described as comprising the interaction with colleagues; adequacy of compensation; the pressure for conformity; fairness of the reward structure; the standards of the institution; equity of workload; existence of status symbols; and the behavior of leaders. The success with which each of these elements is met determines the tenor of the institutional climate, which impacts upon the satisfaction levels of faculty, their motivation, and their capacity and desire to improve.

Faculty Evaluation

Faculty evaluation has been the source of some discontent on campuses, primarily, as Palmer (1983) observes, because there is frequently little consensus as to the purposes and methods of faculty evaluation, and two contradictory purposes are often simultaneously pursued: assessment of the strengths and weaknesses of faculty members for development purposes; and to determine whether a faculty member's employment should be continued or terminated. The result is often faculty fear and distrust of the evaluation process. House (1982) makes the point that an evaluation process must be perceived to be fair if it is to command any legitimacy and confidence on a campus. An atmosphere of fear and distrust is not conducive to maintaining such legitimacy and trust.

Boggs (1983) maintained that faculty evaluation would be more effective where multiple methods were utilized. Not only would varying perspectives on strengths and weaknesses be supplied (peer, student, self, administration), but the threat of undue emphasis being placed upon one aspect of a faculty member's work, from only one perspective, would be mitigated. Abplanap and Baldwin (1983) concur that a favorable organizational climate has to be maintained if development and evaluation are to succeed. Indeed, this is essential, for if development and evaluation fail, and fear and mistrust abound, faculty morale and motivation will be adversely affected, with concomitant implications for productivity, performance, and, hence, student outcomes.

The structure of the academic reward system has important implications for evaluation studies. Given the importance attached to certain activities, such as publishing and research, Marshall and Perrucci (1982) found that these activities were of central importance in promotion and salary decisions, even in institutions whose first concern was not research.

In attempting to establish evaluation criteria, and hence reduce the elements of fear and mistrust which the evaluation process may create, Bradley (1983) suggested that administrations would produce a more effective outcome if they utilized material from interviews. While time-consuming, the justification for this expenditure was the enhanced understanding which was afforded of the nuances of perceptions held by various individuals: The approach would both enhance understanding and help create an atmosphere in which legitimacy might be conferred. Bradley also urged that evaluation be flexibly organized to take account of the emphases of the variables impacting a given situation. Such variables included the context, activities, communication, the audience, policies, and implementation.

Summary

While need and selection receive little attention in the research literature, the power of departments does appear to have some impact in such decisions. With regard to rewards, the extent to which the rewards provided command legitimacy, and what precisely is rewarded, will influence the faculty to respond more or less positively to efforts to manipulate the reward structure. The problem, as Baldwin and Krotseng (1985) capture it, is to identify the most efficacious organizational conditions, productive programs, and effective incentives. Currently, each institutional approach to this problem is ad hoc, and no clear pattern seems to emerge. When successful, however, the results are likely to be enhanced faculty morale and productivity, which contributes to the creation of an improved institutional climate.

Faculty satisfaction and identification with their institution is critical to the climate and culture of an institution according to Cameron (1982), and also impacts student outcomes through the quantity and quality of teaching undertaken. The intended outcomes of a less discontented faculty are an improvement in productivity, both qualitative and quantitative; higher morale; greater commitment and involvement; and greater acceptance of developmental and evaluative efforts. These outcomes are associated with a commensurate improvement in student outcomes in the areas of learning, recruitment, retention, effort, and achievement.

The opposite case, that of faculty dissatisfaction, can lead to increased student attrition, negative academic performance outcomes, and negative student perceptions of the quality of their education. In the area of community development, Wijk (1982) maintained that faculty dissatisfaction could lead to non-involvement of an institution with its community, and result in a negative impact upon recruitment, enrollment, and community support.

The dimensions important in maintaining high faculty morale include an administration sensitive to faculty needs; a sense of autonomy and control for faculty over their working conditions; engagement on multiple tasks; and a feeling of security, ownership, and pride in their institution.

Faculty development activities may vary in their extent and content, depending in part upon the type of college undertaking them: Non-secular colleges seem to be more involved in such activities than are secular ones. The important influences upon faculty development activities are the existence of top-level administrative support, and of a formal organizational structure for the activities; an institutional climate conducive to development (i.e., not marked by suspicion and territoriality); and the suitability of the particular development activities undertaken.

Key to the success of any faculty evaluation activities are the legitimacy of the process, as perceived by faculty members; the extent to which the purpose of any evaluation is clearly understood; the pursuit of multiple methods of evaluation; and the degree to which the evaluation process takes into account the reward structure of the institution (i.e. the evaluation of teaching should recognize the primacy of research in the reward structure). Successful evaluation can lead to a climate characterized by better faculty morale, higher productivity and more effective use of faculty resources. Improved student outcomes may also result: Student learning will be enhanced through the improvement in the abilities of the faculty; and improved faculty morale can lead to both better student morale and productivity, and, associated with these, better retention.

Evaluation and Assessment Systems

Evaluation and assessment are processes whose ultimate goal appears to be uniform across all organizations; that is, to provide information so improvements can be made. Evaluation and assessment in education are time-honored traditions stemming from Aristotle's evaluation of his first student and the guilds of the medieval universities in which professors certified future instructors for teaching posts.

Assessment is a topic that is receiving a great deal of focused attention today. Assessment is viewed as a vital tool to aid decision makers in distributing declining resources as well as to provide critical information regarding the quality of education offered in our nation's colleges and universities. Because evaluation and assessment are processes that can provide essential information for administrative decision making regarding strategy and academic management practices for the improvement of the teaching and learning environment of the institution, they are included in our list of organizational practices that may have an impact on student outcomes.

In discussing evaluation and assessment systems in higher education, one must ask the following questions: What is being assessed at the broad level? for what purpose? by whom? what is the content of assessment? and what instrument is used (or how)? The answers to those questions are multitudinous. For simplicity, we will consider categories of answers to those questions.

Traditionally, higher education serves three functions: teaching, research and service. Each of those functions may be the focus of assessment. Our primary interest is in the evaluation and assessment of the teaching or educative functions of higher education; the primary question investigated is, "What happens to the students as a result of the educational process?"

When we consider the purpose behind the evaluation and assessment of the educational function of higher education, the consensus appears to be that evaluation and assessment

result in the improvement of the function. Investigators seek to determine whether the institution's teaching and learning processes make a difference in educational outcomes, e.g., the felt climate, broad organizational outcomes, and student learning outcomes. Evaluation and assessment may focus on the strategies and practices employed to achieve the desired outcomes to determine if they do, indeed, result in the desired outcomes or to determine how they might be altered to result in improved outcomes.

Evaluation and assessment studies are conducted by a number of different parties. For example, they are conducted by individuals, such as the students, faculty, and administrators; moreover, they are conducted by groups, such as by units, institutions, systems, state agencies, or accreditation organizations. The primary interest of this research project is evaluation and assessment at the institutional-level, whether the evaluators are groups within the institution or external to the institution.

The identification of appropriate content is a critical task in the assessment process. In assessing the educational function of higher education, the following may be appropriate content areas: personal characteristics; teaching and learning activities; cognitive, behavioral and attitudinal outcomes; and the felt climate. The sources of data to assess these content areas are the students, faculty, and administrators.

Finally, the development of appropriate evaluation and assessment instruments is a critical task in the evaluation and assessment process. However, it is not the task of this research team to evaluate evaluation and assessment instruments that have been or are currently used in education.

In summary, this research project will investigate evaluation and assessment systems to the extent to which these activities take place as an institutional strategy to improve the teaching and learning environment and ensuing learning outcomes.

Academic Information Systems

Academic information systems are critical to all levels of decision making in an institution. Without quality information, readily available, decisions will be increasingly governed by hunches, heuristics, and educated guesswork. Information regarding students, courses, grades, faculty, budgets, alumni, etc. have traditionally caused considerable headaches for institutions, needing to be gathered, organized, stored and retrieved. Increasingly, computers have been employed to handle these tasks more effectively and efficiently than humans, and Tetlow (1984) now sees the current period as marked by the second wave of computerization, during which reliance on the mainframe is replaced by a new emphasis on the microcomputer. In response to the move toward decentralization in many institutions, not least because of the sheer volume of information being generated, Tetlow argues that the selection and introduction of microware represents an eminently productive activity. The implication clearly is that institutions not developing along these lines must either be so small and uncomplicated that they generate only information that can readily be handled by people, or they are less efficient and effective than they could be.

Suttle (1984) suggests that microcomputers may be regarded with some suspicion, but that the result of this is either paralysis or less efficient or effective productivity than can be the case. Where microcomputers are in use, however, they both allow for, and often require, a greater level of communication among more varied and numerous individuals than was previously the case. In enhancing communication, understanding is also enhanced, and understanding has positive effects upon climate and culture, improving involvement and motivation, with consequent improvement in student morale, learning, retention, etc. Suttle also believes that computer information systems encourage decentralization, providing leadership and decision-making opportunities at new levels, which also enhance the self-esteem and involvement of those connected with this process.

For the faculty, staff, and administration, Meredith (1984) maintains that the use of microcomputers helps each individual do his or her job in an individual way. This is a satisfying experience. Conversely, though, this very individuality can lead to problems, since a wide range of perspectives and predispositions can make consensus difficult to

achieve. The increase in the information available to, say, deans may mark an increase in their power, and a diminution in that of the central administration, if the deans can make more effective use of that information in support of their positions. To Meredith, implementation of microtechnology to academic information systems requires a comprehensive approach. Such an approach is characterized by the involvement of a wide range of potential users, the monitoring of these individuals in order to avoid fragmentation, and the wide adoption of microcomputers into an institution, rather than their concentration in certain units, which may occasion mistrust and suspicion.

It must be remembered that academic information systems are only of value in assisting decision-making: The fact that reports utilizing the data available recommend a particular course of action is not a guarantee that this be the right course for the institution. Information is only a tool, and should not replace sound judgment. One measure of institutional health, according to Meredith, may well be the extent to which information is perceived to be a tool, rather than a panacea.

Updegrove (1981) pointed to the value of good information systems in the planning process. Institutions with extensive, compatible data bases are capable of presenting alternative strategies and scenarios for consideration almost instantaneously. However, institutions where data bases are not compatible may be almost as inefficient in their planning information as those who process the information by hand. Such an inferior computer information system may be more deleterious to campus climate than the original human system, and discontent and frustration may result. Conversely, an efficient, compatible series of data bases creates a much more efficient environment, which enhances satisfaction, involvement, understanding and morale. It may also result in greater self-esteem for those involved in such a professional enterprise, and this professionalism may translate itself to improved student outcomes.

As Compeau (1984) maintains, students will likely be impressed by an institution which maintains accurate records and can provide information to them quickly and efficiently. Conversely, a less efficient system may be perceived by students to be related to the quality of their education, and this negative association may impact motivation and retention.

The use of academic information systems, and particularly microcomputers, tends to be associated with a move toward decentralization of decision-making. The implication for culture is that tight control will be less easily maintained. For climate, the implication is that productivity, morale, ownership and understanding will likely improve. However, the incompatibility of some individuals' work methods, or, worse still, of microware, can have a negative impact upon efficiency.

In employing academic information systems, it is important to understand that concentrating the computers, or not providing access to information, will likely generate suspicion, and negatively impact climate. However, when seen as a tool to aid decision-making, academic information systems can assist flexible planning. Further, they can improve students' perceptions of the quality of their institution through the rapid provision of quality information when the student requires it.

Summary of Organizational Practices

From the above, it is apparent that organizational practices can exert a powerful influence, positively or negatively, upon the culture and climate of an institution, and have direct impact upon student outcomes.

Academic planning was seen to be important in molding the climate and culture of an institution, with the degree of specificity in planning related to the level of analysis and size of institution: Small institutions tended more to develop institution-wide plans than their larger colleagues, but neither pattern was exclusive. The important feature is sense of purpose, and while this may enervate, for example, small liberal arts colleges, it may be less distinct in, for example, community colleges. In this latter environment, culture and climate may be marked by a lack of clarity or purpose, and this may well transmit itself to the students, with adverse implications for achievement and retention. In order to promote

clarity, program planning and curricular offerings should be related to the mission of the institution in an appreciable fashion. Sound academic management supports the mission of the institution, and enhances clarity of purpose.

While institutional practices may, and some argue should, pursue paradoxical goals, the impact on climate and culture is generally perceived to be positive even in face of the apparently contradictory situation created. Flexibility seems to make important contributions to climate and culture in permitting innovation, development and alternative solutions, and these improvements likely result in enhanced student achievement and retention.

The motivation and involvement of faculty in the enterprise of the institution is an important element in climate and culture, and is encouraged or discouraged by institutional practice. Useful in their promotion are participatory decision-making environments, the availability of quality information, well presented development and evaluation processes, fair resource allocation, and a consistent and relevant reward system. The absence of these elements, or the presence of their opposites, will have a deleterious effect upon the condition of the faculty, creating a less satisfactory climate and culture. Further, less well motivated and involved faculty produce these same outcomes in their students, resulting in lower achievement levels and lower retention.

Institutional provision of support services, academic and faculty, impacts culture, climate, and student outcomes in obvious fashions. Students require good libraries, quality faculty and a sound, purposeful curriculum if they are to achieve their best. Faculty will be more productive when they have secretarial, computing and resource support sufficient for their needs. For these reasons, institutions which can command high levels of resources are likely to possess considerable advantages over less well supported institutions. Available resources may also be wisely spent in special programs for high-risk students, which seem to have positive, if variable, impact upon student achievement and retention.

Along with a good supply of resources, institutions will generally be strengthened by encouraging improvement in the curriculum. Such improvement ensures the currency of information and helps prevent the faculty from stagnating, or becoming burnt out. This maintenance of intellectual vitality contributes positively to the climate and culture of institutions, aiding motivation, involvement, commitment and productivity, while simultaneously assisting the promotion of student achievement levels, currency of students' knowledge base, and improving retention. In this context, a reward system which encourages and recognizes faculty who contribute to the vitality of the institution will be of assistance. Moreover, development efforts not only stimulate faculty, and indirectly their students, they also improve the contribution of faculty to the institution, and thus represent an important step in maximizing the realization of resource potential in the institution.

Organizational Characteristics: Relationships to Culture, Climate, and Student Outcomes

That broad institutional characteristics affect culture and climate is attested to by Schomberg et al. (1983), who suggested that there was more potential usefulness in distinguishing among institutions than in comparing outcomes of programs within an institution. Bowen (1977), while he felt that differences between institutions were not as marked as most people think, maintained that such differences as did exist were due to variations in the programs offered and the environments they create– "differences in such features as institution size, residential arrangements, curricular emphasis, student-faculty relationships, and religious orientation" (p. 247). Several of these characteristics will now be considered.

Organization Size

Bowen (1977), Chickering (1971), and Feldman and Newcomb (1969) have all suggested that small institutions are often associated with educational advantage and tend to concentrate on general education.

Bowen (1977) states that much opinion, and some research, holds that, other things being equal, small institutions produce more desirable changes in students than larger institutions. Referring to the work of Chickering (1971) and Feldman and Newcomb (1969), Bowen points out that research has produced evidence that smallness is associated with educational advantage, but he is also quick to point out that this may not be a causal relationship: Most small colleges concentrate on liberal education and it is difficult to separate the effects of small size and a dedication to liberal learning.

Feldman and Newcomb (1969) regarded institutional size as not necessarily being important of itself, but being perhaps more important in creating certain conditions, which in turn impact the culture and climate. Large size institutions can lead, for example, to a fall in one's estimate of one's scholastic ability, which in turn may result in poor grades, frustration, and ultimately dropping out. High intellectual outcomes require that an institution be both highly selective and that the college socializing efforts be highly successful: While small size does not guarantee this latter, it does make meaningful teacher-student contact more likely. Size is also an important factor in the self-selection process of students: As such, size in part determines the attributes of the pool of applicants.

Lenning (1982), in addressing the causes of student dropout, pointed to the expectation of less student involvement at large institutions than at smaller ones. While research is mixed on the subject, large size has been generally associated with poor retention. However, as Lenning states, the indecisive research results suggest that variables other than size are perhaps the underlying causal factors.

This linkage between size and other variables is important to consider. Gosman et al. (1983) found that size of institution and individual student characteristics were more important in predicting student progression than many other, more general classifications. Race was found to be less significant in such predictions than size of institution and personality type: Extrovert students tended to progress more successfully in large institutions where opportunities abound; introvert students tended to progress better in smaller institutions, where involvement was more likely to be expected or required. Involvement and progression were shown to be linked. Clearly, size is an objective institutional characteristic which, both directly and indirectly, impacts upon culture, climate, and student outcomes.

Type of Institution

Whether a college or university is public or private, two-year or four-year, urban or rural, religiously affiliated or secular, etc. has impact for the culture and climate of that institution.

Upadhyay (1982), working in India, found that private colleges tended to promote a very strict and competitive environment. When competitiveness was linked to a need for achievement (common among students attending such institutions), Bisht (1980), also working in India, found that the result was tremendous stress in the student.

In studying the social standards of students, Jurich (1984) found that these varied depending upon the type of institution attended. Students attending institutions possessing religious affiliation exhibited different moral standards to those at secular colleges.

Bowen (1977) pointed to religious affiliation as an important difference between institutions. Efforts to guide or reinforce the religious orientation of students tends to reduce the "religious liberalism" of students, especially women, and led Bowen to conclude that the impact of differences in religious affiliation upon the culture and climate of an institution is greater than differences between institutions in most other respects.

Feldman and Newcomb (1969) again make the point that religious affiliation is a factor in the self-selection process of students: It thus, in part, determines the attributes of the pool of applicants.

The interactive contacts which students fabricate for themselves appear to vary, depending upon institutional type. Aguirre (1984) found that two-year college students undergo different socializing experiences than four-year college students, and these different experiences are a function of their different environments.

Lenning (1982), whose focus was upon the retention of students, found that certain characteristics were associated with higher retention. These features were: four-year, private, religiously affiliated (Catholic higher than Protestant), and single-sex institutions. Retention was lower at two-year, public, secular, co-educational institutions. Finally, Lenning found that institutions which possessed and communicated a specific and clearly articulated mission generally had higher retention rates.

College type provided Baird (1984) with indicators for achievement measures of students. The level of the highest degree offered and the situational type of the institution were found to be indicative of the general level of achievement of the students: Students of institutions offering only associate's or bachelor's degrees, or at urban institutions, generally achieved less than did students attending doctoral granting, or rural institutions, other things being equal.

Student Arrangements

Student arrangements refers to those characteristics which describe an institutions provisions for its students: Whether it is residential or not; whether it provides adequate student services; whether special programs are available; etc.

Feldman and Newcomb (1969) paid particular attention to the living arrangements of students. Firstly, regardless of whether they live on or off campus, students tend to select institutions not very distant from their homes. Students living on campus reflect a higher retention rate than those living off campus, and among the on-campus residents, retention is highest among mixed-class residents in single-sex situations. Thematic housing, that is, "language" houses or "major" houses can also aid retention.

Off-campus housing, while it reflects lower overall retention, can be improved. Students affiliated with the Greek system are more likely to persist. Lenning (1982) concurs with Feldman and Newcomb that fraternities and sororities aid retention, sometimes even more so than dormitories. Lenning also notes that residential campuses have higher retention than do commuter campuses. This point is further supported by Pascarella et al. (1983) and Chickering (1974), who agreed that commuter students exhibit higher attrition.

Baird (1984) found that the GPAs of residential students were better on average than those of commuter students, and he attributed much importance to the living situation in accounting for this difference.

Bowen (1977) also addressed the impact of a student's living situation. Drawing heavily on Chickering (1974), Bowen maintains that the benefits of a residential environment are both widely believed to exist and supported by most research, though Bowen does cite Bradshaw (1974) as suggesting that in personal developmental terms living off campus can be associated with higher gains than living in a dormitory.

Another element of student arrangements which impacts culture and climate is that of student services. Lenning (1982) saw the availability and quality of student services as important in promoting retention. Included under the broad heading were the counselling, advising, orientation, and learning center services.

Though evaluation studies of special programs for high-risk students do confirm that they contribute positively to student learning and retention, Kulik et al. (1983) did have reservations. After synthesizing the evaluation studies of 60 such programs, they concluded that in proportion to their cost, such special programs were not generally very effective. However, though slight, they confirmed that these programs did make a difference.

Prestige

Prestigious institutions are those which are believed to produce excellent student outcomes. Prestige, therefore, implies achievement.

Terenzini (1980) suggested that prestigious institutions are marked by certain features. They tend to involve students of high ability; their pool of applicants is such that they can be highly selective; faculty salary average is higher than the national faculty salary average; there is a greater preponderance of faculty in the higher ranks; and the level of research expenditure is above the national average. These are characteristics by which to judge the prestige of any given institution.

Ayres and Bennett (1983) considered the institutional characteristics which impacted student achievement, and found the most important characteristics to be: library facilities; financial resources; curriculum design; student body attributes; and faculty quality. A prestigious institution, therefore, would have, or be believed to have, excellent libraries; large financial resources; a curriculum responsive to the characteristics of the students; highly able students; and highly able faculty.

Being a prestigious institution causes certain features to occur. Feldman and Newcomb (1969) found prestige to be a major factor in student self-selection. Able students and/or those with most self-confidence will likely apply to more prestigious institution than students lacking these characteristics.

In terms of retention, prestigious institutions have higher retention rates than less prestigious ones. Lenning (1982) attributes this in part to their selectivity. In selecting highly able students, higher retention rates might reasonably be projected. Moreover, Lenning maintains that since highly selective institutions also tend to have higher prestige, and higher cost, "the financial and ego damage related to dropping out may be prohibitive" (p. 40).

Bowen (1977) referred to the work of Astin (1968) in considering prestigious environments and perceived quality. Astin reported that student achievement did not appear to be affected by the intellectual quality of the other students, academic competitiveness, or the financial resources of the institution. What Bowen highlights is that it is the total institutional environment, not elements of it, which may be related to student outcomes.

One area of student outcomes which prestige does impact is the lifetime earnings of those who attend. Citing the work of Solomon (Solomon and Taubman, 1976), Bowen (1977) points to the fact that the quality of the institution is positively related to lifetime earnings, even if the student drops out, and that this effect is greater upon later earnings than upon those in one's first job. Bowen surmised that three effects might be at work. Education in a "superior" institution might lead to greater self-confidence and aspiration; identification

with a prestigious institution may produce a "grading and labeling" effect that eases access to opportunities not available to all; and high quality colleges may provide a superior education which results in greater economic productivity. Whichever the case, or the combination, the resultant positive effect upon lifetime earnings has been established.

Summary of Organizational Characteristics

From the above, it seems that a number of characteristics do impact the culture and climate of institutions, and in turn affect student outcomes. Institutional size was found to be important in creating conditions which had consequences, rather than being important in itself. Generally, it appeared that there was potentially more advantage attached to small size rather than large, in that this created a more intimate, and involving environment. This not the case, however, for all students.

Type of college was also seen to be important. Private colleges may perhaps promote a more competitive environment for students than do public ones, but retention rates seem higher in private colleges despite this. It also appeared that the experiences of students became richer, the higher the level of the institution's highest degree. Religious affiliation also influenced the climate of an institution, in both its mission and the applicants it attracted.

Student arrangements required consideration of the living arrangements of students, with a residential, mixed-class, high ability combination seeming to produce the best results. Also relevant was the availability of quality student services, and the impact of special programs.

Finally, prestige was found to impact the pattern of applications, the retention rates, and the perceived quality of students. It was also found to be positively correlated with the lifetime earnings of alumni.

The impacts of size, type, student arrangements, and prestige were observed to fall in several areas. Large institutions were less explicit in the mission definition than were smaller institutions, though community colleges are also experiencing a form of "identity crisis." It is also possible that private colleges provide an environment more sensitive to the needs of their students, and in keeping with their mission. Clearly defined missions also correlated with higher retention rates.

Academic structure was affected by size. Large institutions could afford to be comprehensive in their offerings, whereas smaller colleges either attempted to be comprehensive, and likely failed, or could concentrate their efforts, and become "distinctive colleges." Curriculum flexibility was dependent upon the type of institution and its academic structure, in that private liberal arts colleges, especially prestigious ones, could be very exacting in their requirements, whereas community colleges tended more to respond to student demand and local economic need.

Clientele was certainly influenced by all the objective characteristics examined. The combination of self-selection and institutional selection resulted in particular student characteristics being concentrated in particular types of institutions. Competitive, high ability students might be attracted to highly selective institutions. Extrovert students might succeed better in large institutions, introverts in smaller ones. Student aspirations will likely be lower in a two-year than a four-year institution. Prestige may induce students to persist rather than dropout, and is especially important in attracting high ability students, hence less likely to dropout, in the first place.

Less clear than the above was the impact of objective characteristics upon governance structure. Power is a major influence upon the governance structure, and while smaller institutions may reflect a collegial pattern, they, in concert with large institutions, may equally well be political, anarchic, unionized or not, or bureaucratic in their governance structure.

Innovation may be affected, in part, by the wealth of an institution, given, for example, the sheer cost of modern telecommunications systems. Type of college may also impact

innovation, since research universities may regard the introduction of new technologies to improve their effectiveness as part of their mission, whereas a liberal arts college may value traditional methods of instruction and scholarship.

Faculty morale will likely be positively impacted if they are part of a prestigious institution, working with highly able students, and their sense of security will also improve if the institution is wealthy. Large size is generally associated with greater autonomy, but this need not be the case, neither need small institutions provide for less autonomy. Type of institution is important to faculty, in that teaching and research institutions place different emphasis upon the construction of workload: A faculty member would likely be better motivated to work productively in an institution which emphasized the particular preference of that faculty member.

Resource allocation is affected by the levels of wealth available, with more resources easing the political infighting which might otherwise be occasioned. Type of college influences the priorities which determine resource allocation, with research universities possessing different priorities to, perhaps, community colleges or small liberal arts colleges. Student arrangements also impact resource allocation, with student services and special programs creating resource demands in those institutions which have them, which are not incurred in other institutions.

Overview of Organizational Variables, Practices, and Characteristics

Organizational Variables

Governance and leadership styles which promote understanding and consensus are directly associated with a positive climate. The exact form of governance most desirable is less clear, being dependent upon institutional circumstances. That said, extreme conservatism or liberalism seem to be negative in their impact upon climate. The solution lies in finding the happy medium which best suits the particular institution.

Characteristics of the faculty, which the institution can, in part, control through its recruitment decisions, make a significant contribution to the climate of an institution. Faculty relationships with other faculty and with students are directly related to satisfaction levels, motivation, creativity, and student motivation and retention.

Faculty can support the mission of an institution through the importation of their values, where these concur with those of their institution, or can act as anti-models for students when their views violently oppose those of the institution. When values are common, and where morale is high, better faculty vitality and productivity are likely to result, and as a consequence student morale, achievement and retention are likely to be enhanced.

Resource allocation, representing the embodiment of institutional values and priorities, needs to be handled carefully if it is not to negatively affect climate. Power, leadership and clear objectives are the key features in understanding resource allocation, and the aim must be to maintain faculty morale, as far as is possible. As a broad strategy, resource allocation can in part determine the immediate climate in an institution (retrenchment; surgency; etc.) and contribute to the culture of the institution in the longer term (emphasizing innovation, slow increments, etc.).

Innovation on campus has important impact for both climate and culture. Innovative environments are progressive, whereas non-innovative ones show a tendency to stagnate, resulting in lowered productivity and morale. In such a situation, student outcomes might suffer, owing to the lack of enthusiasm among faculty, and the out of date material which they would be presenting. However, while innovation can make a significant contribution to institutional climate, it may do so at the expense of the faculty climate.

Faculty commitment has importance for the academic enterprise, for it is crucial to the involvement and innovation which characterizes more desirable climates, which are those associated with superior student outcomes. The natural tendency toward conservatism among faculty needs to be acknowledged and respected in proposing major change if discontent and lack of commitment are not to result. The institution which can muster the commitment of its faculty is one which is making better use of its resources, and likely achieving more.

Mission definition, when put into operation, seems to positively impact both climate and culture, identifying the institution and imbuing those there with a clear sense of purpose. Further, student outcomes are often more positive in this environment, since there is more opportunity for the student to fully appraise what can be expected in a given institution, and to choose more intelligently among institutions.

Also impacting both climate and culture is the quality of communication extant. Poor communication seems to result in distrust and suspicion, accompanied by lack of involvement, burnout, and the eventual possibility of a fall in student achievement and retention. Formal structures will help in mitigating this distrust, as will wide participatory decision making, which is well communicated to those outside of the decision process.

Related to the culture of an institution, academic structure was found to be related to size of institution and clarity of purpose. Large institutions may be able to pursue many goals, but smaller ones have likely been forced to decide between distinctiveness (clarity of

purpose) or comprehensiveness (lack of clarity). The decision made impacts the academic structure, and this affects the culture of the institution, producing a clear purposeful institution, or one suffering an identity crisis. The resultant culture may also impact student outcomes, particularly achievement and retention levels.

All objective characteristics examined seemed to affect the clientele, which in turn impacts the culture of an institution. Quality students help motivate faculty, in general, and motivated faculty contribute to high achievement levels: The one reinforces the other. Moreover, persistence, when one perceives the quality of one's education to be high, is enhanced, which in turn strengthens faculty motivation, and student achievement.

In terms of student outcomes, it appears that a very important consideration is the clarity of institutional purpose, communicated both through the curriculum and through the consistency with which the institution acts. This seems to enhance student understanding of the institution, its culture, and its expectations, and result in improved retention and achievement levels. Again, it is quality communication which facilitates the maintenance of morale, this time in the student domain, and successful communication will result in improved student outcomes.

Academic Management Practices

Climate would appear to be characterized by the combination of affective responses provided by each member of a community, and aggregated. Thus, faculty morale becomes a critical dimension in climate. When faculty are satisfied, climate is positively impacted. When faculty are discontented, negative impacts result. Clearly, practices which affect morale contribute toward the creation of institutional climate.

Related to morale, and flowing from it, are a number of other conditions which affect the vitality of an institution. Commitment and involvement of faculty impact climate positively when present, and negatively when absent, and in turn influence the presence or absence of other features such as productivity, innovation, and co-operation in development and evaluation efforts. In order to improve morale, and hence positively impact all these other areas, institutions would do well to stress the importance of communication. When understanding is enhanced, the capacity for distrust and suspicion to flourish is mitigated. Knowing how decisions were arrived at, and who arrived at them, using what information, contributes positively to a faculty member's sense of security, which is one aspect of his/her quality of life, and thus contrail to morale.

Also to be considered in improving morale are ways to provide faculty members with a sense of ownership for what transpires. To create this, institutions might pursue participatory governance; emphasize decentralized autonomy and control; create channels for faculty to provide feedback; or consult widely with faculty prior to a decision being made. No one pattern has exclusive claim to being successful, but all can contribute positively to the improvement of morale, and hence climate.

Lastly, faculty need a sense of pride in order to maintain high morale. Institutions can encourage this pride in two arenas: personal; and institutional. In the personal arena, faculty development efforts can improve a faculty member's professional skill level, and assist him/her in realizing more of his/her potential. In the institutional arena, the university or college can present itself to the faculty member as a place which is concerned with faculty well-being; which seeks to help faculty and students achieve more; which is prepared to back up these sentiments with action, support services, and resources; and which rewards good performance in a consistent, appropriate, comprehensible, and equitable fashion. Institutional prestige may help in this, but without these other qualities prestige will soon only be regarded as noise without substance.

Institutional governance and leadership practices which promote communication, understanding and involvement will likely exert a very positive influence upon the climate of an institution. Conversely, ill communicated decisions of an anonymous "cabinet" would likely have the reverse impact. For these reasons, it is more productive if leadership style is open, and information sources and decision-makers are known. Without these conditions,

faculty morale will likely suffer, and, in turn, student achievement and retention will be negatively influenced.

Academic planning represents a major influence on culture and climate, in that it fixes the character of the institution in a combination of values and organizational structures. When planning is undertaken with the support of the faculty, the results may be expected to be positive, and the climate likewise, unless there are fundamental flaws in the plans. Without faculty support, planning will have only a negative effect upon climate, and near to no impact, as the chief implementation agents (faculty) are acting to obstruct, rather than facilitate, the plan.

Academic planning also conveys a sense of purpose in the enterprise. As such, it conveys messages concerning the institution and its intents, and these messages shape culture and climate through their interaction with faculty, staff, students, and external constituents.

The provision of suitable and sufficient resources both for faculty and students has important implications for climate and student outcomes. Practices designed to ensure the availability of adequate libraries, computing facilities, and appropriate secretarial services will have a more positive influence on an institution than a laissez-faire or uncaring administration would have. Nurturing the resources of faculty and students not only will make them happier and more committed, but will also enable them to be more productive, and to achieve more. Facilities management may thus be characterized as investment in critical human resources.

Academic information systems can be sources of understanding or mistrust, depending upon how they are utilized, and can also be sources of satisfaction and efficiency, or frustration and inefficiency, depending upon the technology employed and the level of skill of those using it. As such, institutional climate will be more advantageously influenced when highly skilled administrators maintain state-of-the-art computerized data-bases and interface capacities, and the sources of information, and their content, are shared as widely as possible. These conditions best provide for the development of informed consensus, or at least informed debate.

Student outcomes may also be enhanced when accurate information, regularly updated, and readily disseminated in multiple useful fashions is made available. This can create an impression of a quality institution, and may lead to a perception of high quality within the institution, and contribute to better student morale and retention.

While the objective characteristics of an institution may not easily be altered, student outcomes may be further enhanced by seeking to provide as much information about the culture of an institution prior to the student attending. In this way, the likelihood of there being a satisfactory "environmental fit" between the student and the institution is increased. Where environmental fit is satisfactory student achievement levels, involvement, morale, and retention are all enhanced. Thus, communication, this time of expectations, again becomes a key feature in institutional improvement.

The dimensions of climate which are related to students are broadly similar to those related to faculty. The maintenance of morale is key to the assurance of student effort, productivity, achievement and retention. Faculty morale is thus doubly important, for it directly impacts student morale, and hence student outcomes. Student climate needs to be maintained at a positive level if student outcomes are to witness improvement. Beyond the impact of positive faculty attitudes, student climate and aspirations will also be enhanced where genuine and significant student-faculty relationships exist: An environment perceived by the student to be a caring one will result, in general, in greater student morale, motivation, effort, achievement and retention.

Finally, faculty management practices which successfully implement development activities and mitigate burnout will positively impact student outcomes through improved learning, achievement, satisfaction and retention.

Organizational Characteristics

Size of an institution appears to create conditions which impact climate more than actually impacting climate itself. Smaller institutions may be more intimate, may promote more involvement, may be more collegial in nature (though need not be), and may attract a more introverted type of student than larger institutions, but there is no guarantee that any of these conditions will result, simply because the institution is small.

Type of college did seem to directly impact climate. Private colleges seemed generally more competitive than public, yet still managed to maintain equal or higher achievement and retention levels. Religious affiliation was also related to higher retention. Moreover, the higher the level of the institution's top degree, the higher the aspirations of the students and the higher their achievement levels.

Prestige was also an influential characteristic in enhancing climate. High prestige was associated with faculty self esteem and motivation, and affected the recruitment and retention patterns, as well as correlating with high achievement levels, and being linked to the lifetime earnings of alumni.

The culture of an institution is at once less volatile than climate, and simultaneously more difficult to manipulate in order to bring about improvement. The dimensions which comprise culture include both institutional characteristics and organizational variables. The size, type, student arrangements and prestige of an institution all contribute to its culture, since they embody values. Small colleges may be so because they believe that small size promotes educational advantage; non-secular institutions are, in part, imbued with values peculiar to themselves, which help shape their value system; residential colleges perceive living on campus to be important to student development; and prestigious universities may value scholarship, and attract and admit only the highest quality students. Each of these characteristics contributes to culture, but each is hard to change. Not least, this is because they each represent institutional values, and to change them implies that institutional value was misplaced, or is now redundant. A college experiencing enrollment decline may still try to operate as it has in years of peak enrollment; likewise, a liberal arts college experiencing student demand for more professional preparation courses may be very slow to respond, if it chooses to respond at all. Thus, culture may be seen to be far more deep-rooted than climate.

With regard to student outcomes, the stimulation which students derive from contact with their peers can help in their improvement, depending upon the quality of this stimulation. For this reason, living arrangements and the student body mix represent characteristics which the institution may manipulate in order to occasion improved student outcomes. Residence on campus, in close contact with students from other year groups, seems to enhance outcomes. However, research is less clear on whether a student mix best improves outcomes when it emphasizes variety or when it emphasizes concentration: Variety promotes tolerance and an understanding of alternative approaches and perspectives; "thematic" housing may lead to a polarization of student attitudes towards those of others in their major field, a result accentuated in large institutions. Both represent improved student outcomes, and it is a matter of institutional culture which decides which approach is the more valuable.

A Conceptual Synthesis: Complexity or Chaos

As this review suggests, the literature on the organizational context for improving teaching and learning outcomes is not only complex, but the literature in higher education is sparse, confusing and in a state of conceptual chaos. When viewed from an organizational perspective, the research on how colleges and universities as educational organizations influence or affect the academic or cognitive learning outcomes of students is both limited and disillusioning. This is disappointing given the extensive literature that has developed regarding colleges and universities as organizations (Peterson, 1985) and the extensive attention which has been given to important organizational issues, such as governance, resource allocation, decline and effectiveness on the one hand, and to student outcomes on the other. Admittedly, the linkage between organizational variables and what students acquire in their organized learning experiences is both nebulous and remote. The disappointment is that while we have given intensive attention to developing organizational and governance models (rational, community, political, organized anarchy, loosely-coupled systems, etc.) in higher education, virtually all have been borrowed from other organized institutional sectors in society (business, government, etc.) and none have focused on the essential purpose of colleges and universities: organizations designed to promote learning—both for faculty and for students.

The confusion and chaos emanates from at least two sources. First, there is a great deal of organized activity designed to promote improved teaching and learning. There is an extensive descriptive literature describing such efforts (not synthesized in this review) but, with the exception of very limited case studies or largely unpublished institutional self-studies, these efforts are seldom evaluated in terms of their contribution to improving student outcomes and, particularly, learning outcomes. Second, as noted in previous sections of this review, many organizational terms (environment, culture, climate, etc.) are used inconsistently or without definition in higher education.

Purpose, Preliminary Focus and Limitations

Given the state of the literature, the purpose of this synthesis is to reduce some of the confusion and chaos by: (a) developing a consistent framework for examining the literature in the future and for guiding NCRIPTAL's research; and (b) clarifying many of the concepts which may help us examine colleges and universities as learning organizations. This literature search and this synthesis are subject to certain definitions and limitations that need to be reiterated.

First, the term organization is used to describe the organized character of a particular college or university. The primary definition of *organization* guiding this synthesis is:

> A contrived group of people who come together for the purpose of achieving objective(s) and whose behavior has a characteristic pattern.

This recognizes college and university organizations as predominantly human organizations (composed of individuals), which are intentionally organized (contrived), which are purposeful (in this case promoting learning), and which have some characteristic pattern (which may be either static or dynamic). In essence, our primary interest is in studying the formal and informal human organizing patterns. The term *institution* is referred to as a set of similar societal organizations (e.g., colleges and universities as the higher educational institution as distinct from other organized sectors).

Second, the term *environment* (so as not to be confused with culture, climate, organizational strategy and management practices used later) is used broadly to refer to all characteristics of an organization (i.e., its internal environment), of some subset of the organization (i.e., its academic environment), or of the surrounding organizations and groups with which the college or university interacts or by which it is influenced (the external environment).

These rudimentary distinctions are useful in delimiting the focus of this synthesis. Colleges and universities as organizations are often discussed in terms of differing sub-environments: the external, student, faculty, curricular, technological, administrative, or organizational environment—each describing major constituent groups or the curricular, technological, and organizational elements (See Figure 2). For the purpose of this synthesis, the external environment is not analyzed but is recognized as a significant influence on organizational strategy (discussed later). The extensive literature and conceptualizations of the student, faculty, curricular and technological environments are the focus of other NCRIPTAL research teams; they have not been the primary focus here except as they interact with the organizational and administrative environments.

By "the organizational context (or environment) of student learning," we are focusing on those formal andinformal patterns (structure and processes) of colleges or universities that: (a) draw together or cut across the other environments (i.e., give them a contrived character); and (b) that affect or serve the academic function (i.e., the teaching/learning purpose and objectives). Implicit in our focus on student learning is the notion that our primary focus is on the educational, as opposed to the research, service or other supportive functions of a college or university and on broad organizational patterns (not those that primarily refer to student or faculty environments alone). However, as with the external environment, when broad student, faculty, curricular or technological patterns interact with organizational patterns they are considered. Since organizational and administrative patterns are so often intertwined, we have included both environments within our purview of the organizational context.

A Framework for Organizational Context

While the literature contains little research to link organizational and administrative phenomena to student learning outcomes, it did provide greater clarity in defining the rudimentary framework with which this literature review began. Figure 3 portrays a slightly revised view of the organizational context or environment which this research program will examine. (Remaining sections of this synthesis will provide more detail and further clarification of concepts).

As noted in Figure 2, colleges and universities as human organizations are conceived as consisting of seven interacting environments (external, student, faculty, curricular, technological, administrative, and organizational). The focus of this framework is on the organizational and administrative environment that serves the academic or educational function of a college or university.

As a result of the literature review, this organizational and administrative environment is seen as consisting of six different domains of organized behavior (Figure 3): organizational strategy; formally organized academic management practices; organizational culture; organizational climate; psychological climate; and teaching/learning outcomes. These domains are seen as interacting and each potentially contributing to improved teaching/learning outcomes. The nature of each organizational domain, the elements or activities each encompasses, the variables that best characterize it, and the relationship to teaching/learning outcomes are discussed in the following sections.

Teaching/Learning Outcomes as a Dependent Organizational Variable

The domain of teaching and learning outcomes is discussed in another NCRIPTAL report. However, as noted in the earlier literature discussion, learning or student outcomes are seen as a subset of performance criteria often used to judge colleges and universities. The primary emphasis of NCRIPTAL on student learning or cognitive outcomes further delimits this primary dependent variable since much of the organizational literature focuses on other performance measures (effectiveness, productivity or efficiency, reputation, resource attractiveness, wealth, etc.) or other student outcomes (affective or behavioral) or other longer term impacts on graduates in society.

In reality measures of student learning outcomes are still not widely collected, very few have been reliably or validly developed, and have not been standardized in different types of

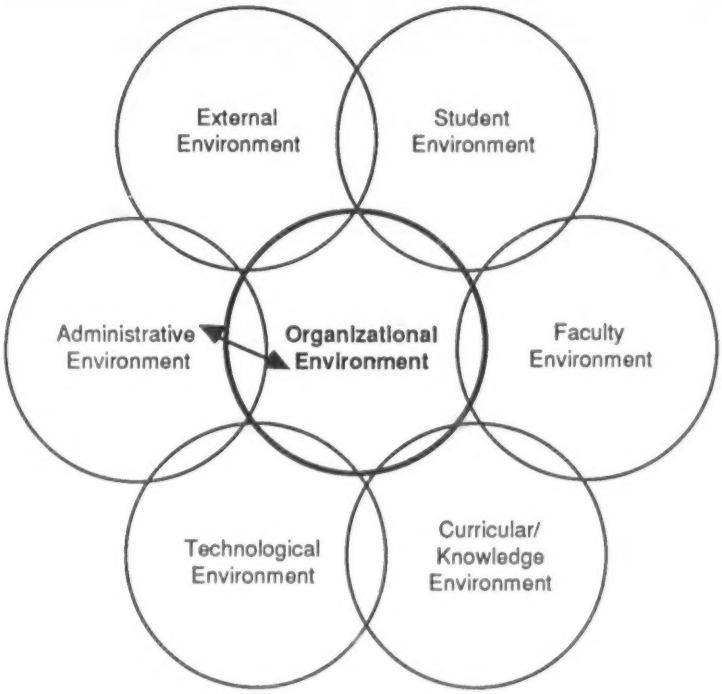

Figure 2. College and university environments.

colleges and universities. More importantly, since colleges and universities as organizations are our unit of analysis, our primary interest is in aggregate measures of student outcomes. Aggregate measures of learning outcomes are still difficult or expensive to obtain, may vary considerably by unit within a given institution (making the aggregate measures less meaningful) and may not be equally valid for colleges or universities with differing goals or purposes or of differing types. Thus, although the measures of cognitive learning are NCRIPTAL's primary focus, an organizational level of analysis suggests the importance of other student outcomes which may be more readily available, less expensive, and more valid given the diversity of colleges and universities.

Among measures we would suggest are:

Persistence: Retention rates and continuity of enrollment (involvement). Learning attributable to a college or university requires this.

Graduation rates: Most colleges and universities design programs and degrees with graduation as an implied objective.

Aggregate student satisfaction and Goal achievement: Such measures are appropriate indirect measures of organizational responsiveness to its clientele.

Post-graduation experience: Obtaining desired jobs, entry to higher levels of education, etc. are often available.

All of these are reasonable measures of the effectiveness or outcomes of the learning process or educational activities of an institution. They do not, however, obviate the need to examine NCRIPTAL's *student learning outcomes* (or improvement). These measures, however, need to be appropriate to institutional type and to the college or university's purposes for its undergraduate education.

Figure 3. The academic organizational context.

Organizational Strategy: The Guidance Function

A major domain of the organizational and administrative environment of a college or university is encompassed in the notion of organizational strategy. *Strategy* is used here in the broad sense to depict the overall design of the college or university which defines the "direction" of the organization, the "fit" or relationship between the organization and its internal environments with its external environment or key external constituencies, and the broad "structural" and "functional" patterns for accomplishing its purposes. The strategy of a college or university may be explicit or implicit, formal or informal, planned or unplanned. In today's rapidly changing higher education environment, there is substantial consensus (if not firm evidence) that an explicit and somewhat formal or planned academic strategy is desirable, perhaps necessary, to assure that colleges and universities remain or become more educationally effective.

There are many ways to categorize institutional strategy. Two that appear useful are the following (see Figure 4). The first looks at the degree of "future orientation" and the "source of control" of the organization's direction and design which suggests four strategies: proactive, adaptive, responsive, and reactive. The second also reflects an "internal to external" orientation and the organization's emphasis on "flexibility versus control" over members and their organizational activity. These dimensions suggest four slightly different strategies: clan, adhocracy, market, and hierarchy. The global notion of strategy is useful in depicting organizations—whether it affects institutional performance or student outcomes is unclear, but it may shape the other domains (culture, climate, and management practices).

Strategy, in this context, can be discussed in terms of the following elements: planning, mission and goals, governance, leadership, academic structure, and resources.

Planning: Creating Strategy

Planning, which is strategic in nature (i.e., designing a fit between the college or university and its external environment) usually encompasses activities such as: external environmental assessment (policy analysis; scanning; forecasting enrollments, program needs and demands, faculty supply and demand, fiscal and facilities needs, demographic changes, and economic conditions; issues management; etc.); internal self-study or assessment (analysis of characteristics and performance of programs, faculty and students; resource use analysis; etc.); values assessment (the views of various internal and external constituents on the purposes of the institution); and the creation of a plan or sense of mission. A number of variables which describe a college's or university's planning structure and process have been suggested as potentially relating to the teaching/learning process. Some are:

A.

SOURCE OF CONTROL	ORIENTATION OF STRATEGY: FUTURE ..... CURRENT	
ORGANIZATION	PROACTIVE	RESPONSIVE
ENVIRONMENT	ADAPTIVE	REACTIVE

B.

CONTROL OF MEMBERS	ORIENTATION OF STRATEGY: INTERNAL ..... EXTERNAL	
FLEXIBLE	CLAN	ADHOCRACY
CONTROLLED	HIERARCHY	MARKET

Figure 4. Typologies of organizational strategy.

Concern for strategic planning: Emphasis or planning as a major function– *explicit, visible,* and *formally legitimized.*

Internal/external orientation: A balance of these perspectives is generally advocated.

Strategic vs. interpretive orientation: The former relies more on rational and analytic modes and the latter on leadership that emphasizes institutional vision and values and utilizes personal or transformational leadership modes. Again, a balance is advocated.

Dynamic vs. static: Emphasis on an ongoing planning process rather than on a static plan or document.

Educational priority or emphasis: As opposed to priority emphasis on finances, facilities, governance, management or other resource issues.

Comprehensiveness: Planning emphasizes the four strategic elements (environmental, institutional and values assessment, and planning), and focuses on the major organizational resources (finances, facilities, faculty and staff, programs, and information/educational technology).

Degree of coordination: Of planning with processes of program development and planning, resource allocation, educational evaluation, and faculty and staff development, and among major academic and administrative offices and units.

Participation: Provision for breadth of constituent.

Representation: Including faculty, students and lower echelon administrators in and/or providing them with an opportunity to influence planning.

Penetration or decentralization: Degree to which planning or major elements of it are carried on at lower echelons or in academic units.

Process consistency: Of planning process with governance and leadership style. Relationships of planning to key governance structure and executive offices is clearly understood.

Analytic sophistication: Extent to which planning uses timely and appropriate data.

While research on planning suggests some of these dimensions generally are related to other desirable organizational outcomes (recovery from decline, major decision choices, better communication and/or understanding of institutional functioning), the relationship to a more supportive teaching/learning climate and/or student learning is implied rather than supported by extant research.

Mission and Goals: The Content of Strategy

Implicit in the research is the notion that the educational mission and goals of a college or university are shaped by institutional characteristics, and that they are important features in shaping supportive teaching/learning climates and some student outcomes. However, these are primarily affective or behavioral outcomes rather than student learning outcomes. By institutional mission and goals, we do not mean a formal plan (although some may exist). Institutional mission and goals may be identified from institutional tradition and culture, from planning documents, from leader statements, or from patterns of organizational functioning.

While there is no specific notion of the content of an institutional mission, Shirley's (Shirley, Peters, & El-Ansary, 1976) notion of strategic decisions or choices offers a good model of such. It consists of the institution's understanding about:

Basic mission: *Functions* (besides education) the college or university will engage in; the scope or level of educational offerings; and breadth of types of offerings.

Clientele: Characteristics and educational needs of potential student learners.

Goals and objectives: Specific educational objectives in context of basic mission and clientele (presumably including learning outcomes to be emphasized).

Program mix: Type of educational offerings and modes of delivery.

Geographic service area: The region to be served or primarily emphasized.

Comparative advantage: What college does best for its clientele given its resources and strengths compared to other postsecondary educational organizations.

While mission is conceived as more general than goals or objectives, several characteristics of a college's or university's mission and goals appear to be related to a supportive teaching/learning climate and presumably learning outcomes. Those include:

Clarity/consensus: Mission and goals are unambiguously understood.

Learning content emphasis: Mission and goals emphasize educational, teaching and learning content. The type of learning content (general education competence, professional or discipline comprehension, vocational or occupational skills, remedial skills, etc.).

Legitimacy: Primary constituents (students, faculty, and academic administrators) find mission and goals appropriate.

Orientation: Focused on ends (substantive learning outcomes) rather than means (processes).

Objective vs. subjective: The emphasis is on quantitatively measurable results not perceptual or judgmental outcomes.

Mission and goals which have these characteristics suggest a focused, intensive pattern which would be supportive of a climate that stresses teaching and learning and is oriented towards student learning outcomes.

Governance

The governance structure and process are often part of an institutional strategy for making the important strategic decisions and are closely linked to the planning and goal setting process. In the past higher education has often treated governance as an end (e.g., the desirability of consensual decision making). In this schema governance is seen as a means—the process by which institutions make critical strategic decisions which should allow them to achieve their ends (in this case improved learning outcomes).

There is little in the governance literature which suggests that governance is related in any direct way to learning outcomes. However, governance is often of substantial concern to faculty and students who value the process as a means of influencing their teaching and learning environment. Dimensions of the structure and process of governance which may impact on student learning outcomes include the following:

Representational/participation structure. The existence of hierarchical administrative structures, faculty academic senates, college/university senates, dual systems, and collective bargaining are different structures which suggest different patterns of *representation* for faculty (and students) which many suggest is related to responsiveness to educational or teaching/learning issues.

Type of decision process. Consensual, rational-analytical, political, and "ambiguous" decision processes are all described favorably and unfavorably in higher education governance literature. Community, consensual or participatory decision processes are generally believed to be most appropriate for academic and educational issues although there is only limited evidence relating it to student learning.

Centralization/decentralization. Closely related to the issue of governance representation patterns and type of decision process is this dimension. Decentralized patterns of decision making—especially on educational issues—are generally preferred yet the relationship to student learning is unclear. This variable is confounded by three different ways of defining it: *level of representation* in the governance hierarchy, *level of decision* authority, and amount of *influence*.

Type of Decision. Studies of governance suggest different types of decisions vary in their degree of centralization (e.g., curricular and educational decisions more decentralized and budgetary decisions more centralized). Given the constraint on resources and the increasing interdependence of decisions, the differences may be declining as all types of decisions are more centralized.

Process consistency/coordination. The issue of planning decisions being consistent with the governance process and the need to coordinate planning and governance bodies (when different) was discussed in the section on planning.

Clearly some governance variables do influence the faculty work climate although the relationships to student outcomes still need to be examined.

Leadership: A Critical Ingredient

The research literature suggests that leadership style is related to features of a college or university's educational culture and climate. Once again the relationship to student learning or student outcomes is less clear. Several leadership dimensions, however, are suggested.

Level and degree of leadership support. Most organizational literature and some in higher education suggest the importance of top level leadership support for educational

mission and goals if they are to be accomplished. The extent of leadership support of presidents and chief academic officers may be critical.

Breadth of leader involvement. The role of strong visionary leaders, team leadership, or more pervasive involvement and support at differing levels of the academic hierarchy are all suggested as critical in improving institutions. The importance of administrative, faculty and student leadership in educational improvement is also in need of assessment.

Leadership style: Leadership style in organizations has been shown to be critical. Several dimensions are suggested in this literature:

a. Rational-political-consensual
b. Participatory-bureaucratic
c. Interpretive (visionary relying on cultural or symbolic means) vs. strategic vs. administrative orientation.

Credibility/supportiveness. The degree of support and the credibility of key academic administrative leaders may be influential in gaining acceptance of student outcome oriented goals.

Consistency. Lack of consistency is often identified as a failure in leadership.

While leadership issues are subject to debate, these dimensions suggest important ways in which leadership can express its support and perhaps influence a climate which suggests educational improvement and reinforces a focus on student outcomes.

Academic Administrative Structure

The administrative structure is clearly one way in which a college or university allocates authority for and seeks to coordinate its academic and educational mission, goals, and resource allocation processes. Several dimensions are suggested as being important to the achievement of educational outcomes. Some are:

Level and responsibility of chief academic officer

Existence of institutionwide or board level committees of academic affairs

Creation of offices to coordinate all undergraduate education activities

Breadth and type of academic administrative functions reporting to chief academic officer

Resource Allocation

Although more a management than a strategic issue (discussed in "management practices"), broad resource allocation patterns and strategies can reflect a greater or lesser degree of support for teaching/learning. Some dimensions are:

Wealth of institution

Availability of multiple sources of support

Proportion of budget that is education/general budget

Degree and types of institutional support for students (merit, special awards, etc.)

Such measures reflect the priority that institutions give or are able to give to support undergraduate education. Clearly such support is critical for enhanced student involvement in the educational process and reflects the institution's commitment to undergraduate education.

Culture and Climate: Definitions and Distinctions

The literature review suggests that in the general organizational literature these two domains of the organizational/administrative environment are much more clearly delineated than in the higher education literature. Because they are often confused, it is necessary to define them more clearly in order to distinguish them in colleges and universities as well as to see how they function. Table 2 summarizes the definitions and distinctions of culture and climate from the organizational literature. These appear useful in thinking about the domains of the organizational environment of colleges and universities that influence teaching and learning.

Culture Defined

Culture, as a domain construct, emanates from anthropology and sociology. As a construct, it clearly has face validity for anyone familiar with colleges and universities. It is defined as:

> the shared values, assumptions, beliefs or ideologies that participants have about their organization (colleges or university).

Organizational culture may serve purposes which are both instrumental (social interpretation, member control, or organizational adaptation) and interpretive (provides a sense of meaning for the organization). The major features of culture, however, are that it: (a) serves to emphasize an organization's unique character or distinctiveness which gives it a superordinate meaning to members; (b) is deeply embedded and enduring; and (c) is changed primarily by cataclysmic events in the organization or only by slower, intensive, long term efforts. Culture, and its composite meaning, is often captured in sagas about the organization, in its heroic and revered figures, in myths that are perpetuated, or in ritualistic or symbolic events that are valued. Conceptual dimensions for analyzing culture includes the degree of *consensus* among members, the *type of content* of the culture, the *congruence* among its content elements, the *strength* in terms of its control over member behavior, its *continuity* over time, its *distinctiveness* (or belief that it is unique), and its *clarity*. Modes of investigation of culture usually involve rather intensive research (see Table 2). Because of its enduring character, culture is of interest as an independent variable which can serve to attract, socialize, and influence member behavior. However, because it can also limit or constrain an institution in a rapidly changing world, there is also considerable interest in it as a dependent variable; i.e., "How is culture changed?"

Climate Defined

Climate, as a domain construct of the organizational/administrative environment of an organization, emanates from cognitive and social psychology. As noted earlier, the general organizational literature is much more sophisticated in using this construct than is the higher education literature. It is best understood by contrasting it with culture (see Table 2).

Climate, as noted in the literature review, has an objective definition (common patterns of formal organization) which overlaps with other organizational constructs (the strategy and management practices in this framework) and is not of concern here. However, it is helpful to distinguish the cognitive psychologist's view of *perceived climate* (or "image") from the social psychologist's view of *psychological climate* ("felt climate") both because the two constructs are different and because it is useful in our research framework.

Perceived climate is defined as the somewhat more objective or "descriptive shared perceptions of patterns of organizational behavior" (the "is" or "should be" descriptions). The psychological climate reflects the "shared perception of how members feel about the patterns of organizational behavior." The distinction is useful in our framework since the psychological climate can be viewed as an intervening variable between our organizational domain constructs (strategy, culture, perceived climate, and organizational practices) and outcome measures.

TABLE 2

Culture and Climate: Distinctions

	ORGANIZATIONAL DOMAIN			
	STRATEGY	CULTURE	CLIMATE	
			Perceived	Psychological
Basis of Construct	Discernible formal pattern of purpose and design of organization.	Shared values, assumptions, beliefs, or ideologies of participants about organization.	Participants' shared perceptions of organizational patterns.	Participants' attitude and feelings about organizational patterns.
Conceptual Source	Organizational Behavior	Anthropology and Sociology	Cognitive Psychology	Social Psychology
Major Purpose of Construct	Defines nature of organization.	Instrumental (has): social interpretion; behavior control; adaptation. Interpretive (is); metaphor; meaning.	Extrinsic: member control and intrinsic: member motivation.	
Primary Emphasis	Nature of organization's relation to its environment.	Uniqueness from other organizations. Composite or superordinate.	Common views of participant. Contrasts among groups or organizations.	
Major Characteristics	More formal and rational.	Deeply embedded and enduring.	Current patterns; atmosphere or style.	
Nature of Change	May be manipulated by organization's regular planning, governance, and administrative processes.	Cataclysmic or long-term effort.	Varies and may be influenced.	
Concept Examples	Planning, mission/ goals, governance, structural and resource patterns.	Sagas or heroes; myths, rituals, or symbols.	Perceptions; attitudes, norms, and expectations; feelings, satisfaction, morale, commitment.	
Primary Dimensions	Authority, power, and influence; formalization and rationality; specialization; representation; etc.	Strength (controls behavior), congruence (among elements), type (content), continuity (over time), distinctiveness (uniqueness), clarity (unambiguous), consensus (among members).	Same as culture; type (content) is more specific; continuity and distinctiveness are not emphasized; supportiveness (of member performance).	
Modes of Investigation	Case or comparative, quantitative, and qualitative.	Holistic: participant observer, history and archive analysis; semiotic (language and metaphor); content analysis, interviews; quantitative: surveys, projective interviews.	Quantitative: survey, structured interview; qualitative: observation, interview, open.	
Type of Variable	Independent	Independent or dependent	Independent or dependent	

Both views of climate can serve extrinsic (member control) and intrinsic (member motivation) purposes. The major features of both views are: (a) That climate emphasizes "common" views among participants and may be useful for contrasting the views of different groups of participants or among organizations; (b) that it focuses on current patterns; and (c) that it can vary over shorter periods of time and may be influenced or changed. Clearly, the notion of climate does not stress the distinctiveness, the enduring nature, and resistance to change implied in culture. The *perceived climate* emphasizes participant perceptions of organizational patterns and the members' general attitudes which may take on a normative or expectation character while *psychological climate* emphasizes participants' feelings about patterns of organizational behavior, such as satisfaction and morale, loyalty and commitment, or more intensive motivation measures.

Like culture, dimensions of *consensus* among participants, *type* or content of climate, *congruence* among its elements, *strength* in terms of its importance, and *clarity* are important variables to describe a climate. However, compared to culture, *type* or *content* is usually focused on more specific organizational patterns and *continuity* and *distinctiveness* are not critical features. Climates, however, are often assessed in terms of their "supportiveness" in enabling members to perform effectively. Climate is much more amenable to quantitative, immediate forms of assessment than is culture. Like culture, climate is of interest as an independent variable which has been shown to influence, facilitate or support member performance. For that reason it is also of interest as a dependent variable to be affected by institutional strategy and management practices.

Summary

Clearly culture and climate are important domain constructs of organizational behavior that can be distinguished. Both have face validity to anyone familiar with colleges and universities. The sections that follow examine their nature in the organizational context of higher education.

The Nature of Organizational Culture in an Academic Setting

As the higher education literature review notes, colleges and universities do, to a greater or lesser degree, possess an organizational culture. While the evidence of organizational culture is largely anecdotal or limited to a small number of case studies, it is clear that some institutions have strong cultures—especially small liberal arts colleges or older more prestigious colleges—and that strong subcultures may exist in larger institutions. Institutions with strong cultures tend to maintain that culture by attracting students, faculty and administrators with similar values and beliefs, and they are effective socializers of new participants. Strong cultures also appear to influence student affective and behavioral outcomes; however, the relationships to learning outcomes is not well established.

For the purposes of this framework, three primary questions suggest important variables or dimensions to assess. Those are: (1) What is organizational culture in an academic setting? (2) How does one create or change culture? (3) What effect does it have on student learning? The last is a major focus of this research program.

Academic Organization Culture

The concept of culture in higher education is confusing since it exists on several levels. Higher education as a social institution has a culture which makes it a somewhat distinctive place to work compared to other societal institutions. Disciplines and professions segment higher education and provide a knowledge- or methodology-based culture which cuts across colleges and universities. Certain types of institutions have some beliefs about their educational role which may be distinctive. Within colleges and universities faculty and student cultures have been the subject of some research. They may be critical ingredients to shaping a college's and university's culture but are not the primary focus of our organizational interest. The relative strength and influence of such external cultures and internal

subcultures is of some concern in defining, shaping and/or changing a particular college's organizational culture and the importance of understanding its source.

While college cultures can be examined using the conceptual variables in the preceding section (consensus, type, congruence, strength, continuity, distinctiveness, and clarity), an important dimension is *type* or *content* which raises a dilemma. Identifying the *type/content* is critical to understanding whether a culture exists (i.e., it is one participants believe to be distinctive). Yet, the emphasis on distinctiveness makes it very difficult to define a standard set of categories for type or content. The example from the higher education literature, however, suggests that the content tends to be defined in terms of beliefs about one of the following categories of organizational behavior: the role of the institution in society; its mission or superordinate goal; its pattern of governance; its educational philosophy or mode; and/or the character of its student-faculty intellectual orientation.

These two dimensions—sources of culture and dimensions of content—suggest a matrix for attempting to identify a college's or university's dominant organizational culture (Table 3).

This matrix suggests several additional variables for examining a college's culture and its potential for affecting student outcomes.

Dominant source: External, organizational (college or university as entity or its overall strategy) or subculture.

Primacy of educational focus: I.e., content focus represents an educational theme.

Undergraduate emphasis: Primary focus is on undergraduate education or a strong subculture is focused on this.

Adaptive orientation: Dominant culture anticipates or implies academic change.

Presumably cultures which emphasize sources closer to the educational activity of the college or university and emphasize educational or undergraduate education will have greater influence.

Changing Culture

As noted in the definition of culture and in the literature, changing cultures may be very difficult. However, the higher education literature suggests several means for changing or modifying cultures. Those include:

Creating new units/organizations
Changing clientele/staff significantly
Visionary/interpretive leadership style
Strategy and mission redefinition
Reorganization/restructuring
Creative use of conflict
Using cataclysmic events/conditions

What other mechanisms or approaches exist need to be identified. Which mechanisms work and with what degree of success is something that also needs to be examined.

The Nature of Organizational Climate in an Academic Setting

As noted in the literature, climate has been more extensively studied than culture in higher education. The primary focus in this section is on *perceived climate* or *image*. The notion of *objective climate* is similar to this program's analysis of strategy and academic management practices. The notion of *psychological* or *felt climate* will be discussed briefly at the end of this section. Since institutional climate is more current, less imbedded, more varied and a more easily changed construct than culture, it is a major concern as a domain construct.

TABLE 3

Organizational Culture in Higher Education

	AREAS OF CONTENT FOCUS				
SOURCES OF CULTURE	Role in Society	Mission or Goal	Governance Patterns	Educational Mode or Philosophy	Student/Faculty Intellectual Orientation
External: Higher Education as workplace					
Discipline or Profession					
Institutional Type					
Organization as: Entity					
Strategy					
Dominant Subculture: Faculty					
Administration					
Student					

more easily changed construct than culture, it is a major concern as a domain construct.

Despite the attention given to studying climate in higher education and its influence on student outcomes and faculty performance measures, it is still a rather vague domain construct whose usefulness is still in question. For example, most of the climate instruments focus on student climate or faculty character. Instruments focusing on organizational climate (e.g., IFI and IGI) are now dated. Research on how climates are developed or changed is limited. Research relating climate to student learning outcomes is even more sparse. To date, there seems to be no clear definition of the content of climate that is designed to focus on organizational patterns that may improve the psychological teaching/learning climate of students and faculty and indirectly student learning outcomes.

Questions guiding the conceptualization of an academic organizational climate are then similar to those asked of the culture domain: (1) What is organizational climate in an academic setting? (2) How does one create or change such a climate? (3) How does it affect student learning? This last question is a major focus of this research program. We assume it does affect student learning through the psychological climate domain.

Academic Organization Climate

Climate, defined as perceived climate, has three primary sources: administrators, faculty and students. However, since our focus is on the organizational and administrative environment of the academic setting and so much climate research has been done on student climate, our concern is primarily for climate as perceived by academic administrators and faculty. How they perceive the climate is our critical concern since they are presumably less transient than students and will be a major focus of any organizational efforts to improve the teaching/learning climate. Students are, of course, a valid source of perceived climate so are included in that respect.

While college climate can be examined using the conceptual variables for the section on defining climate (awareness, type, congruence, strength, clarity, and supportiveness), the important dimension, if climate is to reflect the organizational environment and to be a

Consistent with our framework, the content areas should probably include perceptions of the educational features of the environments and domains (Figures 2 and 3) represented in this framework. Those would include the generic educational features of the strategy domain (planning, mission and goals, academic structure, and resource allocation); governance patterns and leaderships styles which seem to be critical elements of the strategy domain; the academic work environment or domain of academic management practices designed to support teaching and learning; the educational environment such as educational philosophy and modes of delivery in the cultural domain; and the learning outcomes domain. Additionally, key features of the curricular, technological, student and faculty environments (including patterns of student-faculty interaction) identified by other NCRIPTAL research teams should be included. A final category will focus on institutional priorities and procedures to promote academic innovation and change.

These perceivers of and categories of climate content are summarized in Table 4. Presumably future summaries of specific institutional practices designed to improve teaching and learning and problems or impediments in improving undergraduate education still being developed by this research project will add to these categories or contribute items. Factor analysis or other data reduction techniques should yield dimensions of an academic organizational climate. As with culture, this matrix suggests some conceptual dimensions which the perceivers of climate will be asked to assess such as the "existence" (is-should be) of climate dimensions, their "importance," and their "supportive" character in improving teaching and learning.

Changing Climate

Most of the techniques for changing climate involve more direct organizational and administrative techniques or strategies than those for changing culture. Indeed, many are implicit in the strategy and management practices domain. The climate category which focuses on "academic innovation and change" is intended to identify the perception of *readiness* for or existence of *supportive* activities to enhance change.

Psychological/Felt Climate

This domain is not discussed in this conceptual overview since it was not a part of this literature review. It would include variables designed to assess student and faculty satisfaction with the educational environment and various institutional practices to improve teaching and learning. It would also include motivational dimensions, such as morale, loyalty, commitment, and involvement. These variables are part of the student and faculty environment in this framework and would be included in the literature reviews of NCRIPTAL teams working on those topics.

Organized Academic Management Practices to Improve Teaching and Learning

The strategy and culture domains of the organizational and administrative environment for teaching and learning are the domains that provide "direction" and "meaning" to the college's or university's teaching and learning efforts. Climate is the domain that reflects "how" key participants "perceive" the academic organization. By contrast, the organized academic management practices are those policies, procedures and activities which administrators and faculty devise explicitly to implement the educational strategy. They express "how" the institution supports teaching and learning. As the literature survey and reflection on academic administrative practices suggest, colleges and universities have devised many formally organized ways which they assume improve the teaching and learning process, its climate or student outcomes. This domain can be viewed or analyzed academic program support systems; (2) faculty support systems; (3) enrollment and student support systems; (4) resource allocation; (5) academic evaluation and assessment systems; and (6) academic information systems.

It should be noted that practices could be organized in other ways (e.g. a matrix of student, faculty and fiscal resources on one dimension and functions such as planning, resource acquisition, program development, resource allocation, production, marketing, evaluation,

TABLE 4

Organizational Climate of Higher Education

CATEGORIES OF CLIMATE CONTENT	PERCEIVERS OF CLIMATE		
	Academic Administrators	Faculty	Students
Domains of Organ./Admin. Environment			
A. Educational features of strategy (planning, mission and goals, academic structure and resource allocation)			
B. Governance and leadership			
C. Academic work environment (management practices)			
D. Educational environment (cultural and outcomes)			
Other Environments			
E. Student			
F. Faculty			
G. Curricular			
H. Technological			
Academic Change and Innovation			

etc. on a second dimension). However, the six categories we selected seem to capture most of the major features of activities devised to support teaching and learning. The intent is to identify organized activities that apply to all undergraduate education—consequently, there is little focus on curriculum (courses, requirements, etc.) or on nonacademic student services. (These are the primary provinces of the NCRIPTAL programs dealing with students and curricula). While the literature review noted many academic management activities, experience suggests many others exist which may not have been carefully examined. The following categories suggest major examples of academic management activities. Their important dimensions are summarized later.

Academic Program Support Systems

These are the formally organized activities devised to insure that a college or university offers effective sets of programs. These would include: demand/needs assessment; program design; program and instructional development; program evaluation; academic administrative training and development (e.g., for department chairs); etc.

Faculty Support Systems

These are the formally organized activities devised to insure that a college or university manages its primary human resource, the faculty, in an effective way. Activities would include ones for: forecasting faculty supply and demand; setting priorities for and selecting new faculty; faculty orientation (for new and continuing faculty); individual faculty development and training; instructional improvement; faculty merit and promotion reviews; faculty retraining; etc.

Enrollment and Student Support Systems

These are the formally organized activities devised to insure that a college or university attracts an appropriate clientele and provides them with an effective link to the teaching program and learning environment. It would include activities such as: assessment of potential student clientele and their educational needs; marketing and selection; student entry assessment and assignment; educational retention and supportive activities; special activities to enhance involvement; career planning; placement programs; etc.

Resource Allocation

These activities are those formally organized to insure that human, fiscal, and educational resources are allocated to educational programs. They include program cost and workload analysis; program needs forecasting; facilities, equipment and support staff assessment; setting priorities and planning of program resource needs; reallocation and reduction guidelines; improvement incentives and/or new initiative activities; etc.

Evaluation and Assessment Systems

These activities overlap to some extent with some in the previous categories but represent an area of intense activity in many colleges and universities today. Evaluation and assessment activities are focussed at three levels: student, faculty, and program/undergraduate experience. In student areas the concern is with activities designed to assess educational needs and levels of performance at entry, in progress and at completion. The primary interest is in academic competence; however, as noted in our discussion of outcomes, other measures of student progress and outcomes are also useful at the organizational level of analysis.

Faculty assessment includes those activities devised to assess faculty teaching and research performance– by students, by peers, and by other procedures. It also focuses on the purposes of assessment: continuation, merit, promotion, etc. The source of faculty assessment programs is also of interest.

Profiles and/or reviews of resources and performance of programs are also a major focus for assessment. A critical dimension of this level of evaluation and assessment is its relationship to planning, resource allocation, and accreditation. The source of such evaluation systems (faculty, administrative, or external system) is also of substantial interest.

Academic Information Systems

The existence of evaluation and assessment systems implies some form of academic information system; however, the latter often exists without the former or vice versa. Our interest here is the extent to which an institution collects, maintains in a computerized system, and has available data on students, faculty, and profiles on programs for use in the previous activities. Also the extent to which reports or analyses of various student, faculty and program issues exist or are routinely used is of concern.

Organized Activities: Key Variables

The intent of focusing on the domain of formally organized academic management practices is not merely to identify them although that may be a useful activity in and of itself. There are several organizational variables implicit in the pattern of these activities that may be of interest.

Characteristics or variables that describe these activities and relate to an improved teaching/learning climate and learning outcomes may include the following:

Breadth of academic management activities: The number of activities that an institution has.

Importance/supportiveness of activities: The extent to which they are "perceived" as important to or supportive of teaching and learning.

Content focus of activities: Activity patterns different from the categories used in this presentation may emerge.

Control orientation of activities: Improvement or incentives vs. control activities.

Educational orientation of academic management: To learning outcomes, to process, or to quality of resources.

Degree of coordination/consistency of activities: Among the various activities.

These variables which reflect how the academic management activities are carried out may substantially impact the teaching and learning climate and, indirectly, learning outcomes.

Organizational Characteristics

In the literature review, as in our model, it is apparent that the major domains (strategy, culture, climate, and academic management practices) vary considerably by the characteristics of colleges and universities. The patterns of variation are not always clear but some characteristics stand out as important contextual variables. Those were identified in the literature as being related to culture, climate, or outcomes and include the following:

Size:	Of institution; especially undergraduate enrollment
Type:	Control (public - private) Level (two-year, four-year, university) Religiosity (secular - religious) Locale (urban - rural)
Emphasis:	Undergraduate vs. graduate Teaching vs. research vs. service or other
Prestige:	Wealth (numerous measures) Selectivity (Academic credentials) Reputation (Among academics)

Clearly such variables must be considered in any analysis of the various domains and the relationships among their variables.

Linking Strategy, Culture, Climate and Academic Management Practices: The Effective Learning Environment

Given the complexity of this organizational and administrative environment and its six domains, it is not likely to expect that particular variables in a single domain will have a great impact on the psychological climate (faculty and student satisfaction, morale, involvement, commitment, loyalty, etc.), or on teaching and learning or specific student outcomes. We expect that each domain (strategy, culture, climate, and academic management practices) can be differentiated in terms of their *priority* given to undergraduate education, the extent to which they are *mutually supportive* of a clear undergraduate learning emphasis or objective, and the degree of *consistency* among these views. To the extent that each domain is rated highly on these three variables, one would expect an improved psychological climate and learning outcomes.

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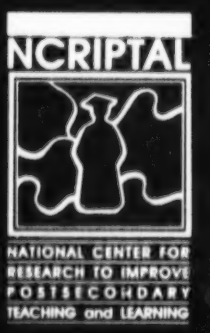
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